

AGRICULTURAL OUTLOOK

Economic Research Service
United States Department of Agriculture

November 1994

THE
NEW
CORNUCOPIA OF PRODUCE

Also Inside:
Fruits of the GATT Accord

AGRICULTURAL OUTLOOK



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Economics Editor—Cathy Greene (202) 501-8542
E-mail: CGreene@ERS.Bitnet

Associate Editors—Nathan Childs (202) 501-8540

Managing Editor—Mory Reardon (202) 219-0566

Overview Coordinators—Stephanie Mercier, Carol Whitton, Field Crops; Leland Southard, Livestock; John Love, Specialty Crops

Statistical Coordinator—Ann Duncan (202) 501-8541

Design & Layout Coordinator—Victor Phillips, Jr.

Editorial Staff—Trina J. Myers

Tabular Composition—Joyce Bailey, Ciola Peterson

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GATT Impacts . . . Fruit & Vegetable Consumption . . . Shifts in Corn Use . . . & State Ag Credit Ventures

GATT To Improve Farm Income

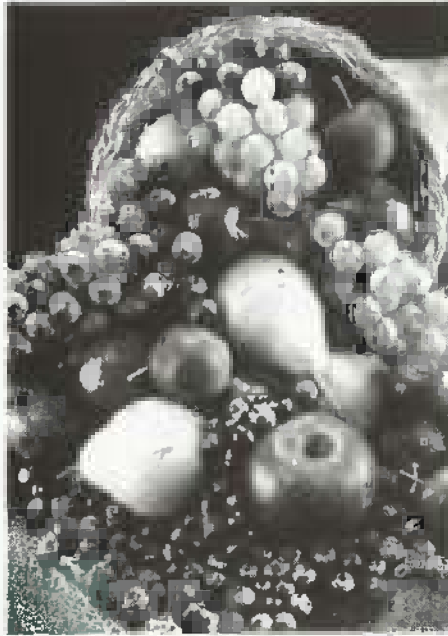
The Uruguay Round (UR) agreement signed last spring will broaden opportunities substantially for U.S. agricultural exports. Increased world demand, expanded access to markets, and reductions in subsidized competition are projected to increase U.S. agricultural exports by \$1.6-\$4.7 billion in 2000, according to a USDA study released last spring. The study projects a rise in exports of \$4.7-\$8.7 billion in 2005. Increased exports will raise farm prices, increase farm income, and lower government outlays on price and income support programs. Farm income is expected to rise by \$1.1-\$1.3 billion in 2000, while government outlays decline nearly the same amount. In 2005, farm income is projected to increase \$1.9-\$2.5 billion, and government outlays could decline by \$2-\$2.6 billion.

. . . & Alter Export Programs

Another principal result of the UR agreement will be a reduction in agricultural export subsidies worldwide. Exports under some U.S. programs will be phased down. For example, by the end of a 6-year phase-down period, U.S. exports shipped under the Export Enhancement Program, the Dairy Export Incentive Program, and the Sunflowerseed Oil and Cottonseed Oil Assistance Programs would be reduced on a commodity basis by 21 percent in volume and 36 percent in value from the 1986-90 base.

Corn Market Sees Changes

Domestic use of corn in 1994/95 is expected to exceed 7 billion bushels, up from 4.9 billion 14 years earlier. Corn use in the U.S. has changed significantly over the last decade and a half. The most important changes have been the emergence of several new industrial uses of cornstarch, greater use of corn sweetener in drinks, expanded use of corn for fuel alcohol, and a decline in exports. Feed use of corn continues to expand. Feed and residual use in 1994/95 is forecast to account for 62 percent of total domestic



and export use of corn, up from 57 percent in 1980/81. In contrast, exports have dropped from nearly a third of total use in 1980, to less than a fifth in 1994/95. Corn used for fuel alcohol has increased from less than 1 percent of total use 14 years ago, to an expected 6 percent, or 510 million bushels, in 1994/95. The manufacture of starch accounts for 3 percent of forecast total corn use in 1994/95, up from 2 percent in 1980/81. The starch is used to make such diverse products as sweeteners and disposable forks and spoons.

The New Cornucopia

U.S. consumers have increasingly embraced the well-known adage about the virtues of eating fruits and vegetables. Today, per capita use is a fifth higher than in 1980, and is likely to continue expanding into the next decade as consumers heed nutritionists' advice on healthful eating. Moreover, the mix has changed. Consumption shifts have occurred among traditional produce items and between fresh and processed forms. Further gains in fruit and vegetable use into the next decade are likely for several reasons. The population is aging, and older

people consume more fruits and vegetables. And the array of consumer choices continues to expand.

Salmon Recovery Measures

Salmon populations in the Columbia and Snake Rivers of the Pacific Northwest have declined precipitously over the last few decades, and several salmon runs have been listed as endangered. A potential Federal recovery plan involving changes in river system management may affect water use throughout the Pacific Northwest. Agriculture, which accounts for nearly 3 percent of the jobs and total output in the region, is among the sectors potentially affected.

Two recovery measures being considered—reservoir drawdown and flow augmentation in the Snake River Basin—have the greatest potential impact on crop agriculture. According to a study by USDA's Economic Research Service, producer profits fall about 3 percent, or by \$30-\$35 million under a flow augmentation strategy, with losses concentrated among Upper Snake producers due to reduced irrigation supplies. For the Pacific Northwest economy, the impacts are small, although a large reduction of irrigation water could alter cropping patterns and slightly increase unemployment in the Upper Snake subregion.

State Ag Credit Programs

Many states have begun accelerating their use of small, innovative agricultural credit programs. Most state programs began after 1978 and have provided credit assistance to serve widely varying needs. But in the last 5 years, several types of programs have become more prominent—in particular, a resurgence of assistance to beginning farmers, encouragement of environmental improvements, and promotion of new and alternative crops. During 1993-94, 32 states had 81 agricultural credit programs in place, assisting more than 31,000 farmer-borrowers, and showing a total outstanding loan balance of \$1.8 billion.

Agricultural Economy



Field Crops Overview

Domestic Outlook: October Projections for 1994/95

On September 30, the Department of Agriculture announced the preliminary acreage reduction program (ARP) for feed grains. The 1995/96 corn ARP was set at 7.5 percent, up from zero for 1994/95. The set-asides for barley and sorghum will remain at zero due to low stocks. The feed grain ARP's may be revised by USDA on or before November 15, if supply and demand conditions warrant a change. A zero ARP was established by the 1990 Farm Act for oats. A final zero set-aside for the 1995/96 wheat crop had been announced on August 1.

The 1994 corn crop is projected to be more than 9.6 billion bushels, up more than 50 percent from last year's flood damaged-crop. Forty percent of the corn crop was reported harvested by October 16, well ahead of last year but near normal progress.

Feed use of corn is projected to be up 11 percent in 1994/95 from last year and virtually the same as in 1992/93. Food, seed, and industrial use is up over 8 percent from last year. Estimates for food, seed, and industrial use fell slightly from last month due to delay in implementing the renewable fuels mandate.

Sorghum and oat crops are expected larger this year, while barley is expected to yield a smaller crop. Nearly 70 percent of the sorghum crop had already been harvested by October 16, well ahead of last year. The barley harvest was in its final stages as of the end of September.

The 1994 soybean crop is projected to be 2.45 billion bushels, a record, up nearly 32 percent from last year. Both yield and area are up from 1993. Sixty-four percent of the crop had been harvested as of October 16, and was far ahead of schedule in Midwest states such as Illinois, Indiana, Missouri, and Ohio.

Soybean crush is projected up 6 percent from 1993/94, due to the increased crop size, lower prices, and greater livestock feeding. All other major components of demand are expected higher as well, with the greatest percentage change coming in the ending stocks category. Soybean ending stocks in 1994/95 are projected to be

U.S. Field Crops—Market Outlook at a Glance

	Area		Yield	Output	Total supply	Domestic use	Exports	Ending stocks	Farm price
	Planted	Harvested							
	—Mil. acres—		Bu./acre			Mil. bu.			\$/bu.
Wheat									
1993/94	72.2	62.7	38.3	2,403	3,041	1,243	1,228	570	3.26
1994/95	70.5	61.7	37.8	2,320	2,970	1,207	1,250	513	3.25-3.65
Corn									
1993/94	73.3	63.0	100.7	6,344	8,478	6,303	1,325	850	2.50
1994/95	78.8	71.8	133.8	9,602	10,457	7,010	1,625	1,822	1.90-2.30
Sorghum									
1993/94	10.5	9.5	59.9	568	743	495	200	48	2.31
1994/95	10.2	9.3	68.9	640	688	400	215	85	1.70-2.10
Barley									
1993/94	7.8	6.8	58.9	400	623	418	66	139	1.99
1994/95	7.2	6.7	56.2	375	579	390	60	129	1.85-2.15
Oats									
1993/94	7.9	3.8	54.4	206	426	318	3	106	1.38
1994/95	8.6	4.0	57.2	230	415	300	2	113	1.15-1.35
Soybeans									
1993/94	60.1	57.3	32.6	1,869	2,167	1,365	593	209	6.40
1994/95	61.8	60.7	40.5	2,458	2,672	1,487	740	485	4.60-5.30
			Lb./acre			Mil. cwt (rough equiv.)			\$/cwt
Rice									
1993/94	2.92	2.83	5,510	156.1	202.5	97.0	79.4	26.0	8.08
1994/95	3.36	3.25	5,926	192.3	226.3	102.0	81.0	43.3	5.25-5.75
						Mil. bales			¢/lb.
Cotton									
1993/94	13.4	12.8	606	18.2	20.8	10.4	6.9	3.5	59.00
1994/95	14.1	13.4	690	19.3	22.8	11.0	7.0	4.9	-

Based on October 12, 1994 World Agricultural Supply and Demand Estimates. U.S. marketing years for exports.

* USDA is prohibited from publishing cotton price projections.

See table 17 for complete definition of terms.

Agricultural Economy

up more than 120 percent from last year's low levels. Soybean prices are expected to average \$4.60 to \$5.30 in 1994/95, down from \$6.40 last year.

Total wheat production in 1994 was 3.5 percent smaller than last year. Food use and exports are projected to increase slightly from last year, but the smaller crop and reduced imports mean use will exceed production plus imports, dropping ending stocks from carrying levels.

Seeding for the 1995 winter wheat crop is well underway in many states, and is practically completed in the hard winter wheat producing area of Colorado, Nebraska, and South Dakota. Seventy-eight percent of the crop had been planted, nearly matching normal progress by October 16.

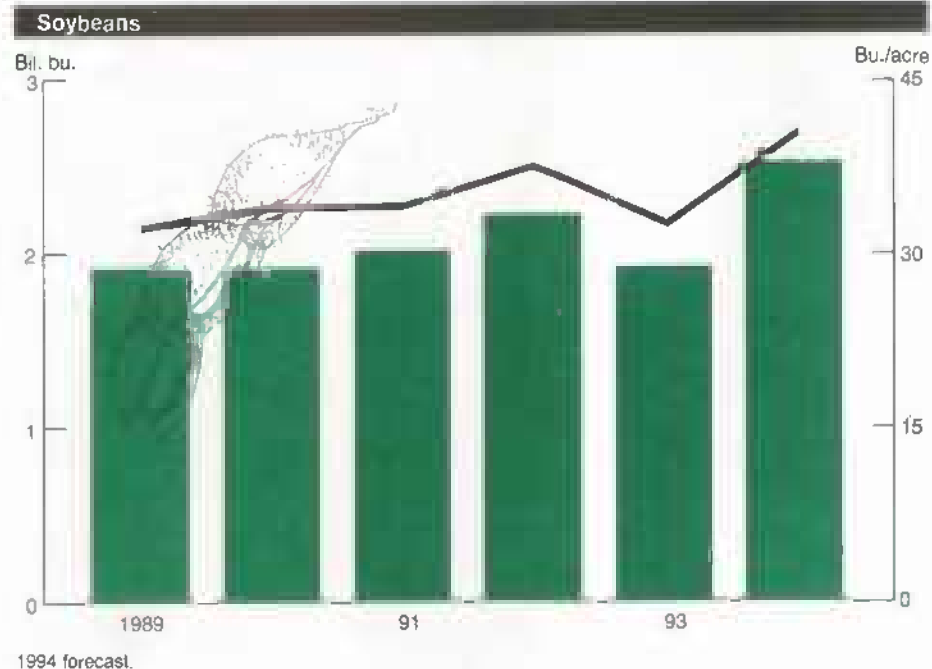
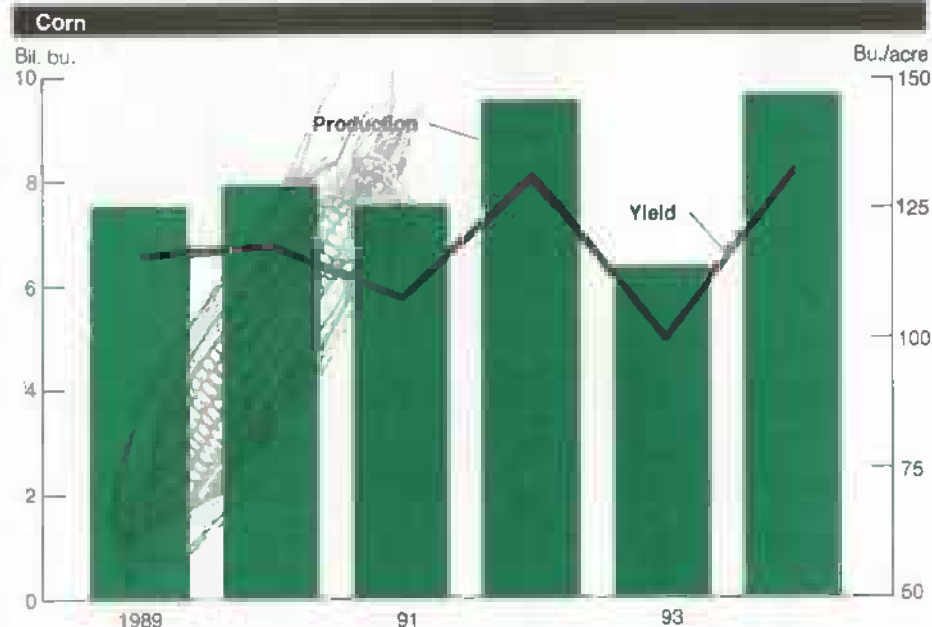
As with barley, the spring wheat harvest is nearly completed. Early assessments of the quality of the crop are good—both test weight and protein content are much improved over last year's crop. The average farm-level wheat price has risen 3 percent since September, due to tightening U.S. and global supplies.

Big increases are expected for cotton and rice crops. U.S. cotton production is expected to reach 19.3 million bales in 1994/95, the largest production in over half a century, and up more than 3 million from last year. The larger crop results from yield gains in the Delta and southeastern states. The crop condition in both regions was rated as fair to good in the first week of October.

Final 1993/94 data released by the Bureau of the Census found that cotton consumption totaled 10.42 million bales, 1.6 percent above the previous year's total. Cotton consumption is forecast to rise again in 1994/95, to about 11 million bales. U.S. cotton exports are down from earlier estimates but still exceed 1993/94 exports by about 2 percent.

The 1994/95 rice crop is projected to exceed 192 million cwt, a record, up 23 percent from last year. Average yield is projected to be a record, and area is up as

Record Yields Lead to Bumper U.S. Corn and Soybean Crops



1994 forecast.

Agricultural Economy

Crop Insurance Reform Passed by Congress

Responding to large budgetary outlays, a sometimes overlapping system of crop insurance and disaster assistance, and relatively low crop insurance participation, Congress passed crop insurance reform legislation the first week in October. To cut costs while making the crop insurance program more attractive to farmers, the reform act, in effect for 1995 crops, makes it more difficult for Congress to enact ad hoc disaster legislation for agricultural crop losses. Instead, catastrophic crop insurance coverage would kick in as the Federal response to emergencies involving crop disasters.

Catastrophic crop insurance coverage will protect farmers from individual yield losses of more than 50 percent at a payment rate of 60 percent of the expected market price—a level comparable to disaster relief programs in recent years. To receive coverage, a farmer will need to pay a processing fee of \$50 per crop per county, up to a maximum of \$600 per producer for all counties in which a producer has insured crops.

Farmers will be able to purchase catastrophic coverage either through a private company or through a USDA county office. They will also be able to purchase coverage providing higher yield or price protection levels for an added cost. Subsidies will be provided to encourage farmers to "buy up" to higher coverage levels.

To ensure widespread participation, crop insurance reform is linked to other agricultural programs. That is, to be eligible for any price support or production adjustment program, the Conservation Reserve Program, and certain FmHA loans, the producer must obtain at least catastrophic coverage for each crop of "economic significance" for which insurance is available. "Economic significance" refers to any crop that is expected to contribute 10 percent or more of the total value of all crops the producer grows.

For crops not currently covered by crop insurance, a "noninsured assistance program" will be in place that provides benefits similar to those under the catastrophic plan for insured crops. To be eligible, an area must suffer a yield loss of more than 35 percent for the given crop. Once this trigger is met, farmers in the area will be paid on individual crop losses in excess of 50 percent at 60 percent of the average market price. This coverage for noninsurable crops is provided at no cost to the producer.

In recent years, the price tag for the crop insurance program has approached \$900 million annually. In addition, ad hoc disaster relief has cost an average \$1 billion per year over the past decade, and more than \$1.5 billion per year over the last 6 years. By streamlining these two programs into one, crop insurance reform is expected to save about \$151 million over a 5-year period.

[Joy Harwood (202) 501-8554]

well. Overall, harvest is 6 percentage points ahead of normal. Harvesting in Arkansas and Mississippi is well ahead of normal.

Domestic use, exports, and ending stocks of rice are all expected to be higher than last year. Season-average farm price is projected to decline to \$5.25-6.75 per cwt, down from last year's \$8.08.

[Stephanie Mercier (202) 219-0751]

Global Market: Outlook for 1994/95

World wheat production is forecast to be more than 5 percent smaller than last year's crop, causing prices to rise and stocks to tighten. World corn trade is forecast to recover from last year's low level, with expanded U.S. exports accounting for much of this increase.

Japan's rice crop is projected to be almost 50 percent above last year's abnormally small crop, reducing Japan's import needs and thus world trade.

World cotton production is forecast to rebound from last year's small crop, but little change in trade is expected.

World wheat stocks tighten and prices rise. As estimates for 1994/95 world wheat production continue to decline, global ending stocks, particularly in major exporting countries, are projected tighter. Continued decreases in projections for Australia's supplies are driving this change, as a severe drought pushes production down 47 percent, to 9 million tons, the smallest Australian crop since 1982/83. Continued drought could reduce the crop further.

Australia's exports are projected down 4.75 million tons from last year, to 7.5 million, cutting that country's ending stocks to only 2.7 million tons, the smallest in 5 years. Exports from the U.S., Canada, and Argentina, projected at 34, 20.5, and 5.6 million tons, are expected to gain from Australia's reduced trade. But only Argentina is projected to produce a larger wheat crop this year.

With larger exports and smaller crops, stocks in both the U.S. and Canada are also projected to fall. In addition, stocks in the European Union (EU) were drawn down in 1993/94, in part because of increased wheat feeding following a shift in relative prices of grains and protein meals under Common Agricultural Policy (CAP) reform. Although EU wheat exports have lagged this season, release of intervention stocks into the domestic market to temper price rises has continued to deplete EU intervention stocks. Ending stocks in the major exporting countries in 1994/95 are expected to fall 18 percent from a year earlier.

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With exporter ending stocks expected to contract markedly this season, wheat prices have risen sharply. Higher prices in the world market are now expected to reduce world trade as some importers reduce purchases. Other importers, such as Egypt, expecting continued price increases, have recently responded with a flurry of purchasing. But world wheat trade is projected to be 5 percent below last season's already weak levels.

U.S. corn exports are rising as foreign exports contract. Global corn trade in 1994/95 is projected to be 9.5 percent above last year's weak performance. U.S. exports are estimated to be 41.5 million tons, 26.5 percent over last year's low level. Argentina's corn exports are also projected up, to 250,000 tons. And, with a large carryin, South Africa's corn exports are expected to remain the same as in 1993/94, at 3 million tons, despite the forecast for reduced outturn this year.

But stronger domestic demand and slower exports during the first quarter of the marketing year are limiting projections for China's corn exports to only 9 million tons in 1994/95, 22 percent less than 1993/94. Reduced production in the EU, particularly in France, and a tight domestic market, are expected to reduce EU exports to only 500,000 tons in 1994/95, down from 2 million last year.

With larger world production, corn prices are expected to fall sharply. As corn prices fall relative to wheat, South Korea is expected to import a record 7 million tons of corn, 1.5 million more than in 1993/94. Mexico's corn imports are projected up a similar amount as a result of NAFTA.

World rice production is higher in 1994/95. At 10.7 million tons, Japan's rice production is projected 50 percent above last year's short crop. Japan's

large crop, combined with recently improved prospects for India's production, plus the previously anticipated output gains in Thailand, Burma, and Bangladesh, have pushed expected world production to 352.1 million tons (milled basis), slightly above 1993/94.

Although Japan's rising crop has not resulted in recent changes in forecasts for calendar year 1995 world trade, it is nonetheless influencing world trade. World exports are still projected at 15.1 million tons, down from 15.5 million in calendar 1994.

However, Japan's huge crop is expected to push its calendar 1995 imports to as late in the year as possible. In this case, these imports would occur in the 1995/96 U.S. marketing year rather than 1994/95. U.S. 1994/95 rice export estimates have consequently been reduced slightly, although still above 1993/94. Projected U.S. calendar 1995 exports remain forecast at 2.7 million tons, up 1 million from 1994.

U.S. exports of soybeans and products rise. The strong gains in U.S. production of soybeans this season, combined with currently tight foreign supplies, are aiding U.S. soybean and product exports in 1994/95, particularly in the first half of the year. U.S. exports of soybeans are forecast at 20.1 million tons, up 24 percent from last year; meal and oil exports are projected up 9.6 and 14 percent, to 5.4 and 0.74 million tons.

Although strong production in Brazil and Argentina is still anticipated, planting will not be finished until late December. Export competition from South America, particularly in soy products, is expected to intensify once harvest is underway in April 1995.

World cotton production is forecast to rebound in 1994/95, rising 10.4 million bales to 87 million. Higher prices during 1993/94 are behind the forecast for increased production this year in China, Pakistan, India, Latin America, and West Africa. Production in Australia is hampered by reduced supplies of water for irrigation, and a smaller crop is forecast there.

World Corn Production Rebounds, Stocks To Rise

	Year ¹	Production	Exports ²	Consumption ³	Carryover
		Million tons			
Wheat	1993/94	558.8	98.8	566.7	139.0
	1994/95	532.0	96.8	556.4	114.5
Corn	1993/94	467.7	55.4	503.6	68.9
	1994/95	545.9	60.6	527.4	87.5
Barley	1993/94	168.9	17.5	169.1	36.5
	1994/95	161.9	15.0	167.8	30.8
Rice	1993/94	350.3	15.5	355.2	49.9
	1994/95	352.1	15.1	357.5	44.4
Oilseeds	1993/94	227.1	37.1	186.4	20.5
	1994/95	251.4	41.9	197.7	28.6
Soybeans	1993/94	117.0	28.0	99.7	17.8
	1994/95	131.3	31.7	103.9	24.4
Soybean meal	1993/94	79.1	28.8	78.5	3.7
	1994/95	82.1	29.0	81.5	3.6
Soybean oil	1993/94	17.9	4.5	18.1	1.3
	1994/95	18.9	4.5	18.8	1.5
		Million bales			
Cotton	1993/94	76.5	26.6	84.6	29.6
	1994/95	87.0	27.0	86.1	30.2

¹ Marketing years are: wheat, July-June; coarse grains, October-September; oilseeds, soybeans, meal, and oil, local marketing years except Brazil and Argentina adjusted to October-September trade; cotton, August-July. ² Rice trade is for the second calendar year. All trade now has been inflated to include trade among the countries of the former Soviet Union. In addition, rice trade, like other grain trade, excludes intra-EU trade. Oilseed and cotton trade, however, still include intra-EU trade. ³ Crush only for soybeans and oilseeds.

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Cotton consumption is also forecast higher, as Japan's and Europe's economies rebound. World cotton consumption is forecast to rise 1.6 million bales in 1994/95, to 86.2 million bales. However, world consumption will remain below the record 86.6 million bales used in 1989/90. Lagging Russian consumption is expected to continue depressing world cotton use.

Little change in expected in world and U.S. trade in 1994/95, with world trade remaining just below 27 million bales and U.S. exports reaching 7 million bales, compared with 6.9 million in 1993/94. With China expected to remain a large importer and Pakistan an unusually small exporter, the U.S. is projected again to account for about 26 percent of world trade.

[Carol Whitton (202) 219-0825]

For further information, contact: Sara Schwartz, world wheat; Randy Schnepf, world rice; Edward Allen, domestic wheat; Bryan Just, domestic rice; Pete Riley, world feed grains; Allen Baker, domestic feed grains; Nancy Morgan and Jaime Castaneda, world oilseeds; Scott Sanford and George Douvelis, domestic oilseeds; Steve MacDonald, world cotton; Bob Skinner and Les Meyer, domestic cotton. World information (202) 219-0820; domestic (202) 219-0840. **AO**

Next month in

Agricultural Outlook . . .

NAFTA: 1 Year Later

Impacts on Mexico's economy and U.S. agricultural trade

Specialty Crops Overview

U.S. citrus production is estimated higher for the 1994/95 season, according to USDA's October Crop Production. The higher supply of fresh-market oranges and grapefruits will contribute to lower produce prices. Tree nut production will be lower this season, but carryin stocks will keep prices from rising sharply. The fall-season fresh vegetable supply could tighten, and keep prices even with the summer-season market. For 1994, despite lower fresh vegetable production, grower prices dropped below a year earlier. Beet sugar prices have risen slightly, following USDA's announcement it would impose domestic marketing allotments for fiscal 1995.

Citrus output is forecast to increase.

U.S. orange production for the 1994/95 season is forecast higher than last season, due mostly to a larger crop of Florida oranges. Navel orange output in California, the major domestic supplier for the fresh market, is expected up 1 percent. Prices for fresh-market oranges this winter are expected slightly lower than in 1993/94. Prices for U.S. processing oranges are expected lower, considering Florida's larger crop, but lower processing orange output is expected in Brazil.

- U.S. orange output in 1994/95 is forecast at 11.4 million tons, up 11 percent from last year and 3 percent higher than in 1992/93. Florida's output is forecast at 8.8 million tons, up 13 percent from 1993/94. California's output, at 2.4 million tons, is up 4 percent.
- In the Brazilian state of Sao Paulo, the world's largest producer of orange juice for export, uncertainty about orange production caused orange juice futures prices to soar in mid-October.

- Fresh orange and grapefruit consumption in 1995 is expected to increase due to the larger 1994/95 crops. Citrus consumption may be turning around from a slump in the 1980's, but citrus fruits are likely to continue facing strong competition from apples, grapes, bananas, and other noncitrus fruits.

U.S. grapefruit production is estimated higher in 1994/95, due to a large Florida crop. Grower and retail prices for fresh grapefruit are expected below 1993/94 prices. California-Arizona lemon output is down, but prices are expected about the same as last season.

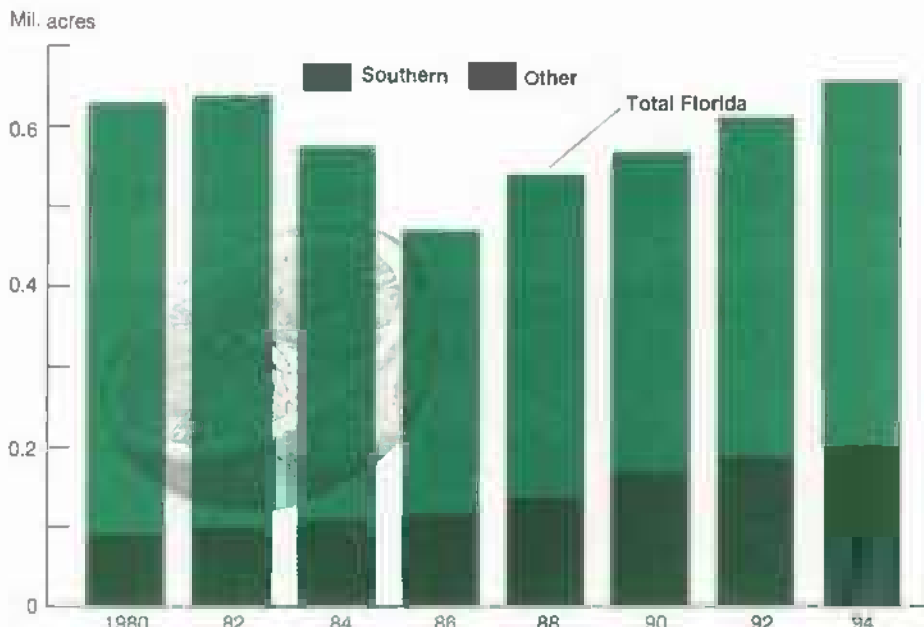
- Florida grapefruit production is forecast at a record 2.4 million tons, up 9 percent, with increases in both the white and colored seedless varieties. Output from California's desert area is forecast up 3 percent from last season.
- Texas is expected to produce 144,000 tons of grapefruit, up from 120,000 tons in 1993/94. The Texas grapefruit industry continues to recover from the December 1989 freeze, which destroyed most of its trees. Texas produced as much as 550,000 tons of grapefruit in the early 1980's, mostly for the fresh market.
- Lemon production in California and Arizona, where most of the U.S. crop is grown, is forecast to drop 3 percent from a year earlier. Quality of the new crop is reported good.

Florida citrus acreage continues climbing, especially in southern counties. Florida's citrus acreage in 1994 increased again, continuing a trend started in 1988. Acreage for oranges, grapefruit, and specialty citrus fruits increased 8 percent over the 2 years since the last census. Florida growers also planted more in the south to minimize losses from winter freezes.

- Orange grove area increased to 653,370 acres, up 7 percent. The number of trees per acre increased 12 percent, and the area in bearing

Agricultural Economy

Citrus Acreage in Southern Florida Continues To Expand



1994 estimate

trees increased 15 percent. The area in bearing trees increased to 78 percent of total orange area from 73 percent in 1992.

- Grapefruit area increased 9 percent to 146,915 acres. The area planted in colored grapefruit varieties increased more than in the white seedless varieties. Area for seedy grapefruit continued to decline.
- Specialty citrus types increased the most—13 percent to 53,457 acres. Temples, Dancy tangerines, lemons, and limes continued to decline in acreage, while Sunburst and Honey tangerines continued to show large increases.

Output of most nut crops is expected lower. While the California almond crop is about a third higher than last year, production is expected to fall for walnuts, pecans, and hazelnuts. Larger supplies of California almonds, which were harvested mostly in September, are pressuring grower prices downward. Higher prices are expected for pecans, whose harvest in Georgia will be less than half

of last year's record output. The hazelnut harvest, which got underway in October, will be less than half of last year's.

- Beginning stocks of almonds on July 1, 1994 were the lowest in 7 years. With the larger 1994/95 crop, supplies will be up about 20 percent, pressuring grower prices down from the near-record \$1.90 per pound set last year. To keep prices from plummeting early in the season, the Almond Board of California has requested USDA approval for a 10-percent reserve for the 1994/95 crop.
- The 1994 California walnut crop is forecast off 15 percent from last year's record. Large beginning stocks will make up the difference, so 1994/95 supplies will be about the same as last season's. With tight supplies of pecans, which can substitute for walnuts, grower prices for walnuts should remain near last year's strong showing of \$1.68 a pound.
- The 1994 U.S. pecan crop is forecast to decrease over 40 percent from last season's near-record output. Flooding in Georgia, where one-third of

the U.S. crop is harvested, prevented growers from entering orchards when pecan scab control was critical. A wet summer increased disease damage and reduced yields in Alabama as well. Grower prices are expected to rebound from last season's 5-year low of \$0.58 a pound.

- Hazelnut growers can expect higher prices this season, as nut production is forecast to drop 54 percent to 38 million pounds, and carryin stocks are only moderately high. The hot, dry summer in western Oregon stressed trees in many orchards.

Smaller vegetable supplies are expected for the holiday season. USDA's October Vegetables report estimated lower acreage for harvest of fall-season fresh-market vegetables. Because of continued weak prices for most vegetables, Florida's fall-season vegetable area is 13 percent below last year's. Prices for celery, lettuce, and tomatoes are expected to increase with lower supplies. Cabbage and cucumber acreage are higher this fall, pushing supplies up for the holiday season.

The 1994 total harvested area of fresh-market vegetables decreased from last year. Prices of most fresh vegetables were weak despite indications that production has been lower. The weak demand during most of the year translates to a likely 10-percent reduction in value of production for 1994. Head lettuce prices remained low most of the year. Onion prices were strong during the early months, but came down in the spring as southern states' production and increased imports entered the market. Tomato prices also stayed low even as Florida and California combined to ship about the same volume this year.

Sugar producers face marketing allotments in fiscal 1995. On September 29, USDA announced the imposition of domestic sugar marketing allotments for fiscal 1995. Each U.S. sugarcane and sugarbeet processor is given a specific limit on sales for the year, above which penalties would apply. The USDA must make a quarterly review of the need for sugar marketing allotments—the next

Agricultural Economy

review is due by January 1, 1995. Sugar producing groups lobbied for the imposition of allotments, and indicated they would likely forfeit sugar on September 30 if allotments were not imposed. Industrial sugar users lobbied against the imposition of allotments.

The beet sugar allotment is 4.36 million tons, raw value, and the cane sugar allotment is 3.53 million tons. The allotment for beet sugar is expected to force about 170,000 tons of beet sugar production off the domestic market this year. Since the cane sugar allotment exceeds the cane sugar production forecast, no cane sugar is likely to be held off the market.

Beet sugar prices rose slightly following the allotment announcement. The imposition of allotments is likely to keep prices in the next year from falling below present levels, and could boost them slightly higher. More substantial price increases could come later in the season if allotments prove to be restrictive.

The Commodity Credit Corporation (CCC) acquired about 8,150 tons of forfeited beet sugar from one company in California in early July, and sold it by mid-August. An additional 5,832 tons was forfeited to the CCC at the end of August by two companies in California. In August, a group of companies filed a lawsuit against the USDA regarding the terms and conditions of the CCC's sale of the first lot of forfeited sugar. This case was still pending in mid-October. The second lot of 5,832 tons of sugar has not been sold.

Domestic sugar production prospects for fiscal 1994/95 have risen in the last month to 7.92 million short tons, raw value (including Puerto Rico). Beet sugar production is forecast at a record 4.525 million tons, raw value, up 12 percent from last year and 3 percent more than the record 1992/93 crop. U.S. sugar-beet production is forecast at a record 30 million tons. In Minnesota and eastern North Dakota, the prospect of large sugarbeet crops prompted some factories to begin harvest in late August, the earliest ever for the region.

Cane sugar production is forecast at 3.395 million tons, including 50,000 tons for Puerto Rico, down 4 percent from 1994. Hawaii's production is forecast at 565,000 tons, down 132,000 from last year, due in part to the closing of two mills in September and October 1994 and the planned closing of another mill in March 1995.

[John Love (202) 219-0388]

For further information, contact:

Dennis Shields and Diane Bertelsen, fruit and tree nuts; Gary Lucier, vegetables; Peter Buzzanell, sweeteners; Doyle Johnson, greenhouse/nursery; Verner Grise, tobacco (202) 219-0882. Lewrene Glaser, industrial crops (202) 219-0085.

AO

Livestock, Dairy & Poultry Overview

Although cattle slaughter weights are expected to decline from this summer's record pace, price increases this fall will be muted by seasonally large beef supplies and record supplies of competing meats. The September 1 market hog inventory and farrowing report indicate record pork production in 1995 and continuing pressure on hog and pork prices. However, with profit margins negative for most producers, farrowings will likely slow.

As Thanksgiving approaches, wholesale turkey prices are the highest in several years. In contrast, sharply higher production and increased supplies of beef and pork are pressuring broiler prices, with the higher priced breast meat dropping the most.

Cattle Slaughter Up, Weights Increase

Following seasonally large cattle slaughter this summer, at record slaughter weights, the stage is finally set for a seasonal decline in slaughter and an increase

in fed cattle prices. However, continued large placements of cattle on feed will keep fed cattle marketings above a year earlier through the winter. The number of cattle on feed on September 1 in the seven monthly reporting states was 5 percent below last year, but 6 percent above 1992 and the second largest for this date since 1978.

Cow slaughter this fall is expected to rise more than seasonally as forage conditions decline and cow culling increases more than seasonally from the lower levels earlier in the year. Although fourth-quarter steer and heifer slaughter is expected to be up only modestly from a year earlier, cow slaughter may rise 5 percent.

Fourth-quarter beef production will also be bolstered by record slaughter weights. Third-quarter dressed slaughter weights, averaging 722 pounds were a record—about 22 pounds above a year earlier, and up about 12 pounds from the 1991 record. Gains in average weights in the fourth quarter will be limited by increased cow slaughter and a smaller seasonal increase in fed slaughter weights. Fed slaughter weights in the fourth quarter could still average 712 pounds—up from 704 last year.

Cattle and beef prices are expected to strengthen slightly this fall as supplies, although larger than a year earlier, begin to decline seasonally. However, fed cattle prices this fall may average only in the upper \$60's per cwt, down about \$3 from a year earlier, as large supplies of beef and competing meats, particularly for processing, hold down seasonal price gains.

Large supplies of processing meats continue to pressure beef trimmings, with 90 percent fresh lean trim prices averaging about \$108 per cwt in September, 17 percent below a year earlier. Increased cow slaughter this fall and an expected pickup in imported beef, will continue to hold down processing beef prices.

Agricultural Economy

U.S. Livestock & Poultry Products--Market Outlook at a Glance

		Beginning stocks	Production	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price
								Total	Per capita	
		----- Million lbs. -----						----- Lbs. -----		\$/cwt
Beef	1994	529	24,220	2,400	27,149	1,510	525	25,114	67.4	68-94
	1995	525	24,582	2,485	27,592	1,590	450	25,552	67.9	65-71
Pork	1994	359	17,480	795	18,634	450	385	17,799	52.9	41.03
	1995	385	18,408	775	19,568	480	375	18,713	55.1	37-40
----- c/lb -----										
Broilers*	1994	358	23,519	0	23,877	2,690	420	20,766	70.0	56.3
	1995	420	24,544	0	24,964	2,790	390	21,784	72.7	52-56
Turkeys	1994	249	4,958	0	5,207	280	245	4,682	17.9	65.0
	1995	245	5,081	0	5,326	305	265	4,756	18.1	59-63
		----- Million doz. -----						----- No. -----		c/doz.
Eggs**	1994	10.7	6,115.8	4.2	6,130.7	185.7	13.0	5,127.3	235.9	68
	1995	13.0	6,165.0	4.3	6,182.3	170.0	12.0	5,165.3	235.3	64-69
----- No. -----										
----- c/doz -----										

Based on October 12, 1994 World Agricultural Supply and Demand Estimates.

* Cold storage stocks previously classified as "other chicken" are now included with broiler stocks. ** Total consumption does not include eggs used for hatching.

See tables 10 and 11 for complete definition of terms.

Pork Production Continues Record Pace

Despite lackluster returns, producers continue to increase the number of hogs kept for breeding. Producers planned to increase the number of sows farrowing by 5 percent from September through February which, if realized, would mean the largest December-February farrowings since 1980. The September 1 market hog inventory and farrowing plans indicate record pork production in 1995 and continuing pressure on hog and pork prices.

Future farrowings will likely be reduced if hog prices remain in the low \$30's per cwt for very long. Profit margins are negative, even for efficient producers. Large low-cost producers and mixed grain-hog enterprises may be the last to terminate expansion. But even for this group, it is only a matter of time before breeding herds will be stabilized or reduced unless prices strengthen.

Barrow and gilt prices dropped sharply after Labor Day as larger slaughter supplies began to fill pipelines and retailers focused on buying beef and poultry. Weekly pork production began rising above year-earlier levels in August, and

that trend is expected to continue at least until late 1995.

Seasonally weaker wholesale prices for loin and rib cuts, and continued price weakness for hams and bellies due to large supplies, will provide a variety of favorably priced cuts of meat for retail featuring this fall. Recent sharp declines in live hog prices should allow modest drops in retail prices as production continues at record levels.

On August 26, the Mexican government announced that, although a previous study found that there was evidence of some U.S. firms dumping pork in Mexico, U.S. pork exports posed no injury or risk of injury to the Mexican pork industry. This effectively ended the threat of Mexico imposing antidumping duties on imports of U.S. pork.

Egg-Laying Flock Remains Large

The table-egg production flock has remained larger than earlier anticipated due to substantially lower slaughter this summer. A relatively high 23 percent of the flock has completed a molt, which ex-

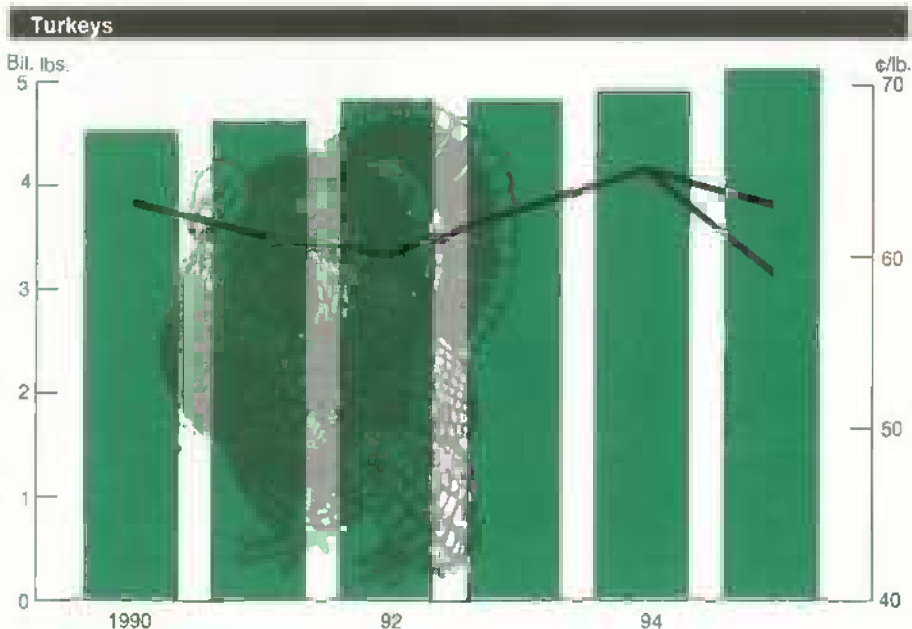
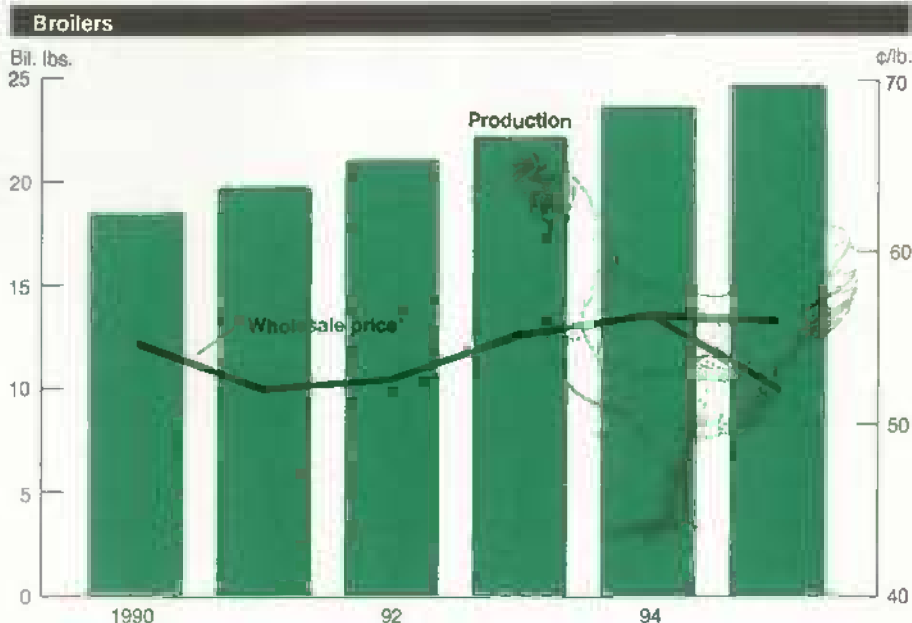
tends the productive life of layer hens. The laying flock has remained larger than last year even though the number of egg-type chicks hatched was down 8 percent during the first half of the year. Expectations of seasonally higher egg prices and lower feed costs in the fourth quarter are probably driving the efforts to maintain flock size.

The number of eggs used for processed products was 13 percent larger than a year earlier in the first half of 1994. Processed use of eggs was low during the first half of 1993 due to relatively high prices for table eggs. In the second half of 1994, processed use of eggs is expected to be above last year's strong levels by nearly 10 percent.

Egg exports are expected to continue strong in the last half of the year, even as wholesale prices rise to near last year's levels. The Export Enhancement Program (EEP) was an important factor in increasing egg exports 20 percent in the first half of 1994 from a year earlier. The majority of table-egg exports are supported by EEP. Exports in the second half of 1994 are expected to be about 15 percent above a year earlier.

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Prices To Dip as Broiler and Turkey Production Reach Record



1994 and 1995 forecasts.
*Season average.

Broiler Production Expands Sharply

Broiler production in the third quarter was about 9 percent above a year earlier, the strongest increase since early 1992. A relatively cool summer in important poultry areas favored heavier birds and

contributed to the expansion. Fourth-quarter production will likely be 6-7 percent above a year ago, reflecting increased hatch. Broiler production for the year is expected to be 6-7 percent higher than last year. Per capita consumption is expected to increase 1.7 pounds to about 70 pounds, another record.

Broiler prices are facing intense competition from increased supplies of beef and pork. The higher valued breast meat has been hit the hardest. During the first 9 months of the year, prices for boneless skinless breasts averaged about 7 percent below a year earlier. Most other parts prices have been above last year. Breast meat prices have probably been affected most by competition from red meats and by some substitution of whole birds for breast meat to meet rising demand for rotisserie chicken.

Leg parts have benefited most from the broiler meat export boom and are priced the highest since the mid-1980's. Exports are up 35-40 percent from last year, estimated to reach 2.7 billion pounds, about 11 percent of production.

Turkey Prices Rise As Thanksgiving Nears

As Thanksgiving approaches, wholesale turkey prices are the highest in a number of years. While many other meat prices have weakened in recent months, turkey prices remain above a year earlier. Slow production growth, about 3 percent this year, and the resulting low stocks, account for much of the price strength. In addition, demand is strong, particularly from export markets.

In late summer, retail whole turkey prices were above a year earlier. However, specials for Thanksgiving are expected to keep retail prices relatively low this fall and near last year's level.

In the fourth quarter, wholesale and retail turkey prices are not closely related. While pre-Thanksgiving wholesale prices are usually the highest for the year, retail prices are usually the lowest due to retail promotions.

In the fourth quarter, whole-bird prices are expected to rise seasonally. A slightly larger increase in turkey output in the third quarter, and greater supplies of red meats, especially pork, may limit later stages of the seasonal price gain. Low-priced ham is expected to compete very sharply with turkey, particularly after Thanksgiving, for consumer dollars.

Producer returns, although negative early this year, have improved steadily. Relatively strong turkey prices and declining feed costs in the third quarter led to the highest returns since 1988. Returns in the fourth quarter will be boosted by seasonally higher turkey prices and lower feed costs, and will likely be the highest since 1986. For 1994, returns are expected to average slightly lower than last year.

Favorable returns during the second half of 1994, and the anticipation of similar returns next year, are encouraging producers to expand production in early 1995. Poult placements in September were 12 percent above last year, and eggs in incubators on October 1 were up 15 percent.

Aquaculture Supplies Remain Tight

Market-sized catfish supplies are forecast to remain relatively tight over the next 6 months. This forecast is based on estimated grower inventory and the low finished-product stocks held by catfish processors.

Grower prices are expected to remain well above year-earlier levels in the fourth quarter of 1994 and into the first quarter of next year. The farm price for 1994 is expected to average 78-79 cents a pound, a record. The strong grower prices will likely encourage farmers to increase stocking levels, which may raise production next spring.

Total sales for the U.S. trout industry in 1993/94 were \$64.7 million, down 6 percent from the previous year. Sales of food-size trout totaled 52 million pounds in 1993/94, a 5-percent decline. However, the average price for food-size trout rose 2 percent to \$1.01 a pound. U.S. trout producers have faced strong competition from a growing farm-raised salmon industry and the lack of additional sites for expansion in the major growing areas.

Holidays' Share of Turkey Consumption Has Decreased

While turkey is the centerpiece of Thanksgiving and other holiday meals, it is also quite popular at other times of the year. The trend to year-round turkey consumption has contributed significantly to growth in the industry. Turkey production has increased more than fivefold since 1960, to 5 billion pounds, and per capita consumption has risen from 6.3 pounds to nearly 18 pounds in 1994.

Per capita consumption has remained nearly 18 pounds per year since 1990. But the share of annual per capita turkey consumption in the fourth quarter (October-December), has declined from 56 percent in 1960 to around 36 percent in recent years. The share of total annual consumption in the first and second quarters increased from around 9 to around 20 percent, while the third-quarter share has remained fairly constant at 22-23 percent.

Recently, growth in the first two quarters has stalled, about the same time gains in annual per capita consumption stabilized. It is unlikely there will be large gains in turkey consumption without more growth in the January-September period.

As personal incomes rebound, turkey consumption may receive a lift, particularly from increased lunch trade. Educational and promotional activities, coupled with the development of new deli, luncheon, and evening meal entrees may contribute to consumption growth. Development of a product popular in the fast-food market could provide a real boost, as it has for the broiler industry.

The lower fat, healthful aspects of turkey have been a successful part of turkey meat marketing efforts for many years and should serve the industry well over the long run. Many processed turkey products, such as sausages, taste similar to pork products but contain less fat. However, this advantage could be reduced by the development of lower fat pork products.

[Lee Christensen (202) 219-0771 and Larry Witucki (202) 219-0766]

Turkey Consumption Is Spread More Evenly Throughout the Year

	Quarter				Annual
	I	II	III	IV	
	% of consumption				Lbs. / person
1960	9	13	22	56	6.3
1970	11	12	26	51	8.1
1980	17	19	25	38	10.3
1985	17	19	24	41	11.6
1990	19	21	24	36	17.6
1994	20	20	23	36	17.9

Totals may not add due to rounding.

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Over the first 6 months of 1994, the U.S. imported 16.5 million pounds of tilapia, up 54 percent from the same period in 1993. Tilapia imports for 1994 are expected to be the equivalent of 45 to 50 million pounds of live fish.

Over the first half of 1994, the U.S. imported roughly 370,000 pounds of crawfish meat valued at \$750,000, both over 490 percent higher than in the first half of 1993. The Louisiana crawfish industry is concerned that low-priced imports may force them out of the processed market.

Domestic seafood consumption includes over \$1 billion in imported aquaculture products, mostly shrimp and salmon. The failure of the farm-raised shrimp crop in China last year and a 13-percent decline in the 1993 U.S. wild harvest is still impacting shrimp prices. Over the first half of 1994, U.S. shrimp imports totaled 269 million pounds and \$1.7 billion, a 2-percent decline in quantity and a 12-percent increase in value.

Greater Exports Buttress Milk Prices

Recent large sales under the Dairy Export Incentive Program (DEIP) will absorb most of the surplus skim solids for the rest of 1994. However, these export sales provided little boost to prices. Expansion in milk production has accelerated, and growth in commercial use of skim solids remains sluggish. The DEIP sales served primarily to remove a potential source of price weakness.

Milk production in the 21 monthly reporting states during September posted the largest increase yearly since the summer of 1992. This year's fairly strong milk prices, the production-enhancing effects of bST, and favorable late-summer weather accounted for the rise in production. The large gain in milk output per cow easily outweighed the small decline in cow numbers.

Growth in commercial use of skim solids remains slow, less than 1 percent in April-July. However, with high prices, even slow growth indicates fairly strong demand. Cheese sales are growing moderately, fluid milk sales are up fractionally, and use of nonfat dry milk (other than to produce dairy products) has likely recovered. Commercial use of skim solids is expected to post small monthly increases during the rest of the year.

Milkfat markets are likely to be tight until after the holidays. The industry continued to buy government stocks through September, normally a slack month. Butter sales have grown fairly consistently more than 10 percent from a year earlier, and use of cream has been strong. Commercial use of milkfat is projected to rise 3-4 percent in 1994.

Market conditions are expected to support current cheese prices, but any additional rises probably will be small. Farm milk prices will average near a year earlier during September-December, resulting in a 2-percent increase in the annual average. Seasonal price declines in early winter may be sharp if production is as strong as anticipated.

For further information, contact:

Leland Southard, coordinator (202) 219-0767; Steve Reed, cattle, hogs (202) 219-1268; Lee Christensen, Larry Witucki, and Milton Madison, poultry (202) 219-0766; Jim Miller, dairy (202) 219-0770; David Harvey, aquaculture (202) 219-0752. **AO**

November Releases—USDA's Agricultural Statistics Board

The following reports are issued 3 p.m. ET on the dates shown.

November

- 2 *Broiler Hatchery*
- 3 *Poultry Slaughter*
- 4 *Dairy Products*
Egg Products
- 7 *Crop Progress**
- 9 *Broiler Hatchery*
Cotton Ginnings
Crop Production
- 14 *Crop Progress**
- 15 *Farm Labor*
Turkey Hatchery
- 16 *Broiler Hatchery*
Milk Production
- 18 *Cattle on Feed*
Sheep and Lambs on Feed
- 21 *Cattfish Processing*
*Crop Progress**
- 22 *Chickens and Eggs*
Cold Storage
- 23 *Broiler Hatchery*
Cotton Ginnings
Livestock Slaughter
- 28 *Crop Progress**
- 29 *Peanut Stocks and Processing*
- 30 *Agricultural Prices*
Broiler Hatchery

*After 4 p.m.

News Watch . . .

Update on Delaney Clause Chemicals

The Environmental Protection Agency has agreed to review and phase out the use of cancer-causing pesticides on food as part of an out-of-court settlement reached last month with several consumer rights organizations. The agency will review a total of 85 pesticides used on foods, to determine if they violate the Delaney Clause, a Federal statute which prohibits the use of a certain group of carcinogenic pesticides—those that concentrate during food processing.

The settlement calls for EPA to complete the process of review and cancellation over a 5-year period. However, the settlement is subject to approval by a Federal court, and could be appealed.

Delaney Clause chemicals are registered for use on a wide variety of fruit, vegetable, and field crops. Many of these crops either do not rely heavily on Delaney chemicals for production, or have effective pest control substitutes available. But some U.S. crop production will be seriously affected by this decision (AO May 1993). Moreover, regional differences in pest problems mean that benefits and costs will be spread unequally across the agricultural sector. For example, a 1991 USDA study of fungicide benefits concluded that apple production in eastern states (40 percent of the U.S. total) would not be commercially viable without fungicides, and captan and other commonly used fungicides in these states are Delaney chemicals.

"Super Rice" in 2000

Plant scientists from the International Rice Research Institute in the Philippines report that initial tests of their new "super rice"—which could increase harvests as much as 20 to 25 percent—were successful. The new variety produces fewer stems, filled with more grains of rice, than other modern varieties, and the institute indicates that it will likely be commercially available by the turn of the century—after insect resistance and other traits are added. The new variety could help meet the needs of the world's growing population, especially in Asia, where rice is the major food crop. According to USDA's Economic Research Service, of the 2-percent annual growth in productivity in developed countries over the past 20 years, almost all derived from technological change such as genetic improvement in seed varieties (AO June 1994).

EU Adds to Its Roster

Voters in Finland opted for membership in the European Union in a referendum held on October 16. Austrian voters endorsed membership in June, and citizens in Sweden and Norway will vote on membership in November. Polls in late October indi-

cated that support of membership in the EU was on the increase in Sweden, but that many voters in Norway are undecided.

The addition of Finland and Austria brings the EU total to 14 members, and represents the first expansion of the EU since 1986. While Austria, Finland, Norway, and Sweden are not a large U.S. market, the U.S. could lose part of its \$300-million trade in agriculture and food exports to the region as these countries integrate into the EU (AO March 1994). Several small niche markets for U.S. specialty products may shrink, and depending on the outcome of U.S.-EU negotiations, market access for U.S. meat may be limited in these countries.

Recycled Paper Prices Are Soaring

Prices for used paper, cardboard, and newspaper have risen dramatically from a year ago in response to industry announcements to expand mill capacity for recycled paper products, and to an economic recovery which has increased demand. Prices paid by mills for old newsprint, for example, have risen from \$10-\$35 per ton in September 1993 to \$55-70 per ton in September 1994, and prices for recycled office paper went from \$5-15 per ton to \$85-\$105.

Most mills built before 1992 were equipped to make products using only virgin fiber from trees and could not accommodate the paper products yielded by recycling. But most mills added since 1992 use recycled fibers as a major input for the manufacture of paper, and a large jump in wastepaper recycling capacity is expected in the next 2 years. Rules set by local governments on mandatory recycled paper content, and the development of improved recycling technology, have been fostering markets for recycled materials (AO September 1993).

USDA-Disney Nutrition Partnership

The Walt Disney Company has joined forces with USDA in a nationwide media campaign to teach children the importance of good nutrition. USDA's Children's Nutrition Campaign will also work with other entertainment media to promote an "eating for health" message to children.

USDA is also bringing producers into schools and working with professional chefs, employees in the school lunchroom, and students in the classroom to convey the message that nutritious food can look and taste good (AO January-February 1994). And in June, USDA introduced a major regulatory proposal—the School Meals Initiative for Healthy Children—to improve the nutrition standards of the nation's school lunch and breakfast programs. **AO**

Commodity Spotlight



Shifts in The U.S. Corn Market

Corn use in the U.S. has changed significantly over the last decade and a half. Among the most important changes are the emergence of several new industrial uses of cornstarch, expanded use of corn for fuel alcohol, greater use of corn sweetener in soft drinks, and a decline in exports.

Domestic use of corn in 1994/95 is expected to exceed 7 billion bushels, up from 4.9 billion 14 years earlier. The composition of domestic use has changed during that time, particularly for food and industrial uses.

Corn used for fuel alcohol has increased from just 35 million bushels, or less than one-tenth of a percent of total use 14 years ago, to an expected 6 percent, or 510 million bushels, in 1994/95. Much of the recent increase in fuel use of corn has been due to Environmental Protection Agency (EPA) rulings requiring both greater use of oxygenated fuels and mandating a fixed percentage of oxygenated fuels originating from renewable sources.

In 1840, corn wet millers developed a process that separates the starch from the gluten (protein), germ, and the corn hull. The manufacture of this starch has become an important market for corn today. Cornstarch accounts for 3 percent, or 250 million bushels, of forecast total corn use in 1994/95, up from 151 million, or 2 percent in 1980/81. The starch is used to make such diverse products as sweeteners, disposable forks and spoons, and many other items. Cornstarch is similar to the carbon molecule in petroleum which is used to make a variety of industrial and consumer products.

At first, cornstarch producers extracted starch for use in foods and as a laundry stiffening agent applied before ironing shirts and uniforms. Cornstarch is still used as a thickening agent in gravies, sauces, and other prepared foods to improve the texture. Currently, food use of starch is estimated to account for 15 percent of total use of cornstarch. Today the majority of starch is for industrial uses—as a coating for paper and paper products and making wall boards for buildings. In addition, the pharmaceutical industry uses starch to make pills and other products. Industrial use of cornstarch account for over 2 percent of total domestic and export use of corn.

Feed use of corn continues to expand. Corn's importance as feed stands in stark contrast to its use in frontier times. Although the early farmers fattened some hogs with corn, their farm animals' primary food supply consisted of acorns and other noncultivated foods. Today, corn is the major source of animal feed in the U.S. In 1994/95, feed and residual use is forecast to reach a record 5.4 billion bushels, and account for 62 percent of total domestic and export uses of corn. In 1980/81, feed and residual use was 4.2 billion bushels, or 57 percent of total use.

Corn is expected to account for 85 percent of all feed grain and wheat feed and residual use in 1994/95. If grains, protein supplements, and feeds from by-product are converted to equivalent units, corn would account for 59 percent of all concentrate feeds.

In 1994/95, beer and distilled spirits are expected to account for 1 percent of total corn use, nearly the same as 1980/81. Corn is also milled to make food products such as corn bread, corn chips, and cereal—these milled uses are expected to account for over 1 percent of total use, up from 0.7 percent in 1980/81.

Feed and Fuel Expand Shares of U.S. Corn Market

	Marketing year			
	1980/81	1985/86	1990/91	1994/95
	% of total use			
Feed and residual	58	63	60	62
Food, seed, and industrial ¹				
HFCS ²	2	5	5	5
Glucose and dextrose	2	3	3	3
Starch	2	3	3	3
Alcohol:				
Fuel	—	4	5	6
Beverages	1	1	1	1
Cereal and other food products	1	1	1	1
Seed	—	—	—	—
Total food, seed, and industrial	9	18	16	20
Exports	33	19	22	17
	Mil. bu.			
Total use	7.28	6.49	7.76	8.64

¹Totals may not add due to rounding.

²Does not include sweet corn, which is categorized by USDA as a vegetable. ²High-fructose corn syrup.

— = Less than 1 percent.

Corn Sweeteners Important in Soft Drinks

In the mid-19th century, wet corn millers developed a process to convert starch into corn syrup, the first sweetener made from corn. Corn syrup has many useful properties for baked goods and is widely used in the home around Thanksgiving and Christmas. In recent years, commercial bakers have been using more corn syrups in their products, primarily because it isn't as "sweet" tasting as sugar, yet has the same desirable properties.

Corn syrup is included with glucose and dextrose in the corn products use category. In 1994/95, 225 million bushels, or 3 percent of total corn use, is expected to be used in producing glucose and dextrose, up from 2 percent 14 years ago. Growth in this category appears to be slowing.

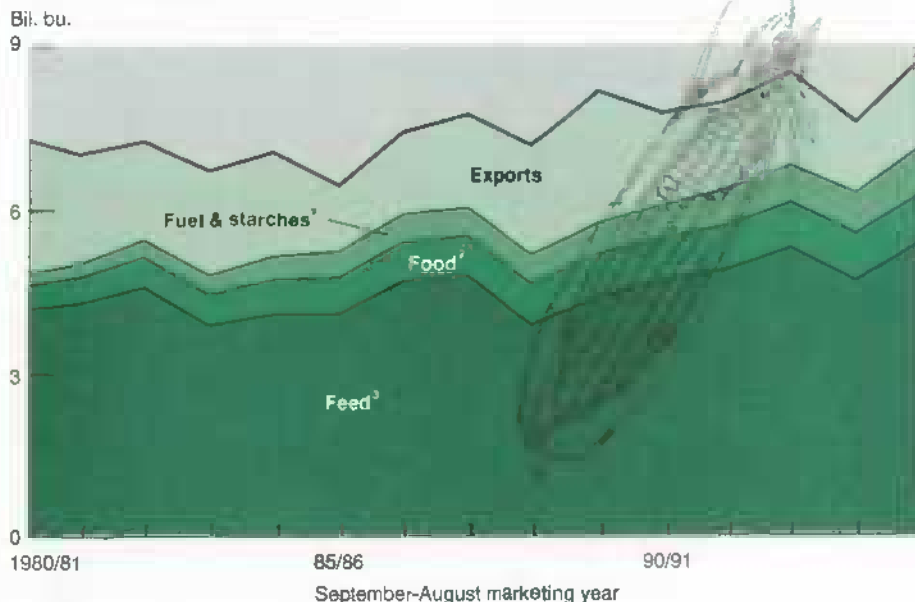
A recent development has been the ability to make high fructose corn syrup (HFCS) from starch. While wet corn millers have been able to make HFCS for several years, use did not really take off until sugar prices jumped in 1974 and soft drink manufacturers began reformulating their products to use HFCS in their products.

Today, about 70 percent of HFCS use is in the manufacture of colas and other drinks. In fact, most nondiet drinks contain HFCS. Corn used to make HFCS in 1994/95 is expected to account for 455 million bushels, or 5 percent of total corn use, up from 2 percent 14 years ago.

Clean Air Act Mandates Reformulated Fuels

A more recent use of corn has been to make alcohol to blend in fuel for gasoline-powered vehicles. Engines have been run on alcohol for a long time, but the cost of alcohol relative to gasoline made this more a curiosity than a viable market option. However, the energy crisis of 1973 and the resulting sharp increase in gasoline prices encouraged the use of alcohol in gasoline. Federal and state tax incentives also helped encourage the use of alcohol.

Most Corn Is Used for Feed



1994/95 projection.

¹Includes starches used for food. ²Includes various sweeteners, and alcohol for beverages.

³Includes uses unaccounted for.

The energy available in alcohol is less than from gasoline, so per-gallon mileage slips when alcohol is added to traditional fuels. However, the addition of alcohol helps gas burn more completely and produces less carbon monoxide. In addition, the oxygen content of alcohol helps cities meet clean air requirements, especially in the winter.

Besides grain-based ethyl alcohol, MTBE—a petroleum-based product—can be used in fuels to reduce carbon monoxide. Both ethyl alcohol and MTBE are used to increase the octane rating of gasoline.

The Clean Air Act Amendments of 1990, requiring cities that fail to meet certain air quality standards to sell only reformulated gasoline, have raised expectations of greater use of corn in the production of alcohol. Corn used for fuel alcohol is expected to reach 510 million bushels in 1994/95, 6 percent of total corn use, up from less than 1 percent 14 years ago.

In addition to the nine cities cited for carbon monoxide violation, other cities are expected to adopt the reformulated fuels mandate. Moreover, ethyl alcohol was expected to be used in production of much of the reformulated gasoline. Last

June, the EPA announced rules that oxygenates made from renewable resources must account for 15 percent of reformulated fuels by 1995 and 30 percent thereafter.

The renewable fuels content requirement is currently on hold while the courts decide if the mandated use is legal. Also, because evaporation of ethyl alcohol is more rapid in warmer seasons, the alcohol can be used only in the colder months, or converted to ETBE, an ether, for use in the summer. Methyl alcohol prices have shot up as the demand for MTBE has increased to meet the first deadlines for reformulated gasoline.

Ethyl alcohol is produced by both dry and wet milling. Approximately 60 percent of fuel alcohol is produced from the starch generated in the wet milling process. Dry mill alcohol plants buy whole corn, then grind the kernels to make the mash for fermenting in much the same manner as colonial farmers did, only on a much larger scale. Dry mill plants then sell the spent mash for livestock feed. This feed contains proteins, yeast, corn hulls, and corn oil. Wet milling yields corn gluten feed and meal, corn oil, and corn germ meal.

Commodity Spotlight

Corn & Demand-Side Policies

Beginning in the late 18th century, government policies have helped to shape the U.S. corn market. But as with most other field crops, it was during the Depression of the 1930's that government involvement increased most significantly. Reacting to extremely low prices and surplus supplies, the Federal government began acreage reduction programs in 1933 that have continued in some form until the present.

While most policies have focused on the supply side, government policies to increase demand were also started as far back as the 1930's. For example, government research aimed at increasing industrial use of corn was underway at that time. During and immediately after World War II, corn demand and prices increased, reducing interest in expanding alternative uses for corn.

In the last two decades, demand-side policies have again increased in importance. The recent development of corn used for ethanol was spurred by government incentives initiated during the energy crisis of the early 1970's. The current effort to use corn as a raw material for fuel oxygenates reflects an EPA mandate, although the final outcome of this effort is still being determined by the courts.

The corn market has also been shaped indirectly by other policies. Some of the impetus for the widespread adoption of corn sweeteners in soft drinks during the 1980's stemmed from limits on sugar imports, which raised domestic sugar prices, making alternatives more attractive to users.

The two biggest components of corn demand, feed use and exports, are less directly shaped by policies. The government has little impact on the demand for animal feed, and the free market is the norm in livestock sectors. Exports of corn have not received export subsidies during the last few years. In contrast to wheat exports, and food aid plays a very minor role in U.S. corn trade. Government efforts to enhance corn exports have focused largely on credit guarantees.

Exports Decline As Share of Total Use

The remaining use of corn is for export, which has been the second-largest component of total use over the last three decades. U.S. corn exports were relatively minor until after World War II. Prior to this, with a few exceptions, U.S. exports were typically small—well under 100,000 bushels a year—and generally accounted for less than 2 percent of use. This reflected both low global trade and a very low U.S. market share, often as low as 2 percent. Argentina dominated world corn exports up to the mid-1940's.

Exports began to assume more importance after World War II, and saw fairly rapid growth in the 1960's, due largely to big gains in European demand. During

the 1970's, corn exports rose significantly, with major new markets emerging in Japan and the Soviet Union. Import demand for corn by developing countries and Eastern Europe also soared in the 1970's, and world trade boomed. U.S. exports increased fourfold during the decade, peaking at more than 2.4 billion bushels in 1979. Export share of use peaked at 33 percent in 1980.

For the next few years U.S. corn exports declined, although a brief rebound occurred in the late 1980's. U.S. corn exports again slumped in the early 1990's, and in 1993/94 accounted for just 17 percent of use, the lowest since 1971. A strong rebound is forecast in 1994/95, up 23 percent, but export share of use is expected to rise to only 19 percent.

Total food, seed, and industrial use of corn exceeded exports for the first time in 1993/94. This reflects both the steady growth in food, seed, and industrial use and the reduced level of U.S. corn exports. Looking at the export downturn by itself is somewhat misleading. In recent years, rising U.S. exports of meat and poultry have helped pick up feed use of corn, and the meat exports capture more value-added gains.

All categories of corn use are forecast to expand, and a variety of factors will shape the U.S. corn market in the future. Growth for some uses, such as starch, will largely be tied to the pace of economic growth. Ethanol use will continue to be determined largely by clean air legislation, assuming no dramatic rise in petroleum prices.

For any of the industrial applications of corn, technological developments could accelerate use, such as gains in the use of corn to make biodegradable plastics. Conversely, corn will also face threats from other raw materials that can compete to make starch, ethanol, or other products more cheaply.

Feed use is expected to continue rising, although the pattern of growth will continue to be marked by considerable fluctuation. The unevenness is closely linked to fluctuations in corn production, mainly the result of weather.

Exports are traditionally the most volatile component of corn use, and the most difficult to forecast. Assuming historical production growth, a wide range of external factors will determine export levels, such as population growth, economic expansion, changes in diets, and the ability of competitors to increase exportable supplies.

For the immediate future, exports will probably remain below food, seed, and industrial use. However, exports are expected to continue increasing in the 1990's, and in any given year—with a large weather-induced shortfall in foreign production, for example—exports could jump dramatically.

[Allen Baker (202) 219-0839 and Pete Riley (202) 501-8512] **AO**

The New Cornucopia Of Produce

As U.S. consumers increasingly embrace the well-known adage on the virtues of fruits and vegetables, their array of choices continues to widen. Fresh-cut fruits and vegetables, prepackaged salads, local brands, exotic produce, as well as hundreds of new varieties and processed products have been introduced or expanded in the last decade.

Per capita use of fruits, vegetables, and melons began an upward growth path in the early 1980's in response to higher consumer incomes, increased ethnic diversity in the population, and burgeoning interest in healthful diets. Today, per capita use is a fifth higher than in 1980, and is likely to continue expanding into the next decade as consumers heed nutritionists' message on healthful eating.

Supermarket produce departments carry over 400 produce items today, up from 250 in the late 1980's and 150 in the mid-1970's. Also, the number of ethnic, gourmet, and natural food stores—which highlight fresh produce—continues to rise.

Consumers increasingly have more access to fresh, local produce as well. The number of farmers' markets has grown substantially throughout the U.S. over the last several decades and was 1,755 by the end of 1993, according to a recent survey by USDA's Agricultural Marketing Service. A 1990's twist on direct marketing has been the development of Community Supported Agriculture by a few growers and consumers—where consumers contract with farmers before the growing season starts, to buy produce grown that year.

New Mix Highlights Fresh Fruit & Salads

While the overall market for fruits and vegetables has expanded in the last 15 years, the mix has changed. Shifts have taken place among traditional produce items and between fresh and processed forms, traditional varieties have lost market share to specialty varieties, and consumption has risen for exotic items.

Americans are eating more apples, grapes, bananas, and other noncitrus fruits, and fewer grapefruits and oranges. Americans consumed nearly 100 pounds of fresh fruit per person in 1993, up more than 14 percent from 1980. Consumption of apples, grapes, bananas, and other noncitrus fruits has climbed almost steadily in the last 15 years, from about 60 to 74 pounds, due to increased availability and lower prices. However, annual orange and grapefruit consumption has declined 6 and 22 percent during this period, due to periods of freeze-induced tight supplies and competition from other fresh fruits.

Freeze-reduced supplies of grapefruit in 1990 and oranges in 1991 raised prices so much that, even after adjusting for inflation, consumer prices were higher than in the early 1980's. Retail grapefruit prices averaged 9 percent higher in 1989-93 than in 1980-84, and navel orange prices were up 4 percent. On the other hand, improved technology and more storage facilities make high-quality U.S.-produced fresh apples and pears available year round. Imports popularized new varieties—such as Granny Smith apples—and augmented winter fruit supplies, which had been dominated by citrus fruit.

While prices of citrus fruits climbed during the 1980's, prices of many noncitrus fruits dropped. Inflation-adjusted retail prices of Red Delicious apples were 10 percent lower in 1989-93 than in 1980-84, banana prices dropped 12 percent, d'Anjou pears were down 7 percent, and Thompson seedless grape prices fell 15 percent.

Gains in U.S. production were largely responsible for lower apple and pear prices, while increased production in other countries encouraged U.S. imports and lowered banana and grape prices. Bananas—at nearly 26 pounds per person annually—continue to be the most popular fresh fruit, and nearly all of the U.S. banana supply is imported.

Consumption of salad vegetables is up, and specialty lettuce varieties—red and green leaf, romaine, and others—are eroding the market share of iceberg lettuce. While increases have occurred across many fresh vegetable categories over the past 10 to 15 years, many of the gains have been for items traditionally found in salads. Components of the increase of nearly 27 pounds per person in fresh vegetable consumption since 1980 include tomatoes (up 3.1 pounds), all lettuce varieties (up 1.5 pounds), cucumbers (up 1.6 pounds), green peppers (up 3 pounds), onions (up 4.3 pounds), and spinach (up over half a pound).

Specialty varieties of lettuce account for almost all of the increase in lettuce consumption since 1980. Use of head (iceberg) lettuce peaked in 1989 at 28.8 pounds per person, and has declined 15 percent since then. However, per capita use of leaf and romaine lettuces increased 48 percent since the mid-1980's to nearly 5 pounds in 1993. At the same time, consumers have rediscovered fresh spinach, and use has more than doubled since 1980 to 1 pound per person.

Increasing use in salads is behind much of the increase in fresh tomato use, up 24 percent to 16 pounds per person last year. The increasing popularity of pizza, pasta dishes, salsa, and catsup is behind the increase in processed tomato use, which was 76 pounds per person in 1993, up 20 percent from 1980. The introduction of various sweet onion varieties has been pivotal in boosting onion demand—which has risen 40 percent to 16 pounds per person since the early 1980's.

Fresh broccoli and cauliflower, which are also frequently used in salads, were viewed as the vegetable market stars during the 1980's. Per capita use more than doubled for fresh-market broccoli to about 3 pounds, and was up 109 percent

Commodity Spotlight

What Is Per Capita Use?

Per capita use of food commodities represents the apparent net utilization of the commodities marketed by growers. Total use is derived from adjusting total utilization such categories as trade (imports less exports), stocks (inventories), and storage losses. When total use is divided by the U.S. population figure (including military), an estimate of commodity use per person is established.

So per capita fruit and vegetable use is not actual fruit or vegetable consumption. The per capita use series is not based on consumption surveys but is an *estimate* of the amount of raw product supplied per person, based on the best available data. USDA's Economic Research Service does not track the actual amount of fruit or vegetables used by consumers. What is termed "per capita use" or "consumption" is actually the per capita supply of fruits and vegetables in domestic markets. In the farm-weight (fresh-equivalent) series, ERS does not make adjustments for loss during transportation from the shipping point, shrinkage from spoilage and trimming during retailing, or product discarded by consumers.

Despite the wide range of the items now included in the per capita fruit and vegetable estimates, coverage is not complete. Many commodities are omitted because of inadequate data. These include squash, pumpkins, okra, greens, and a wide variety of specialty and dehydrated fruits and vegetables.

for fresh cauliflower, to 2 pounds. Widely claimed health and nutritional benefits, verified by the scientific community, likely played a significant role in

spurring demand. Frozen broccoli and cauliflower have also registered impressive gains, with broccoli use up 64 percent since 1980.

Consumption of frozen french fries and other processed potatoes has soared, and now surpasses fresh use. A staple commodity in the U.S., potatoes account for almost one-third of total per capita vegetable use. Perhaps the most significant change in the vegetable market over the past 15 years has been the rise of frozen potato use and the decline in fresh use. Surpassing fresh use in the mid-1980's, frozen potato consumption now exceeds 52 pounds per person annually (on a fresh-weight basis) and continues to move higher.

The popularity of fast-food restaurants lies behind most of the shift toward frozen potato use. In 1993, about 89 percent of frozen french fries (5.5 billion pounds) was sold by food-service outlets. With the success of frozen french fries and potato chips, and a small turnaround for fresh potato use in the early 1990's, total U.S. per capita potato use (farm-weight equivalent) increased 17 percent between 1980-82 and 1992-94.

Exotic or specialty produce—mangoes, kiwis, carambola, jicama, broccoli, and other new or unusual items—mostly remain in a small but rapidly expanding niche market. Some minor fruits that jumped to record-high consumption in 1993 were kiwifruit, up 60 percent since 1980 to more than a half pound, and mangoes, up 68 percent to almost 1 pound. A record California kiwi crop was marketed in 1993, while a 40-percent jump in imports from Mexico boosted mango consumption.

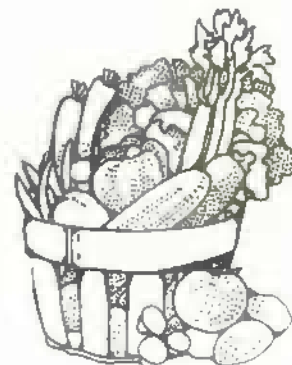
Future Gains Likely

Although fruit consumption continues to rise, per capita vegetable use stagnated in the early 1990's. Some of this can be explained by the sluggish economy through 1991, which limited away-from-home food purchases, as well as weather anomalies which impacted seasonal supplies of some vegetables and kept demand for fresh produce in check during

the severe winter of 1993. Despite the poor beginning in the 1990's, further gains in fruit and vegetable use into the next decade are likely, due to:

- demographics—growth in the population (domestic market size continuing to increase), and the aging of a significant portion of the population (as people mature they tend to increase consumption of fruits and vegetables);
- the introduction and expansion of new products such as baby carrots, prepackaged salads, and other fresh-cut fruit and vegetable products;
- improvements in vegetable varieties such as tastier tomatoes and seedless watermelon;
- the mainstreaming of some nontraditional specialty fruits, vegetables, and melons as they gain favor with consumers; and
- continued promotion of fruits and vegetables by various groups including the Produce for Better Health Foundation (5-a-Day program) and individual commodity boards and associations.

[Gary Lucier (202) 219-0117 and Diane Bertelsen (202) 219-0887] AO



Farm-Finance



States Pursue New Ag Credit Programs

Many states have begun accelerating the use of small, innovative farm credit programs in order to assist beginning farmers, encourage environmental improvements, promote alternative crops, and meet other state goals. During 1993/94, 32 states had 81 of these programs, assisting more than 31,000 farmer-borrowers, according to USDA's Economic Research Service.

These state programs are funded and/or operated by state agencies, and largely complement the larger federally sponsored agricultural credit system. The programs help farmers gain access to credit by providing direct loans, loan guarantees, and grants, which reduce the cost of capital and increase its availability.

Although the pace has quickened in recent years, states have been involved in designing credit programs for several decades and have used that experience to make several innovations in funding methods and program purposes. Although most remain small in size in com-

parison with Federal programs, state-level programs are highly responsive to the credit needs of farmers in their geographical areas. And for some specific purposes—such as promoting new crops and environmental improvements—state funding may exceed Federal.

Surveys of state programs conducted by the Economic Research Service have identified six major reasons why states choose to operate farm credit programs:

- assisting farmers through a period of extreme financial hardship;
- enabling more farmers to qualify for additional assistance, possibly a bank loan or participation in a Federal program;
- fostering successful entry into farming by beginning farmers;
- promoting innovation or diversity through new and nontraditional crops;
- encouraging implementation of environmentally sound practices; and
- strengthening the agricultural sector with incentives to modernize.

Building on Federal Programs

Federally funded farm credit programs have been a familiar feature of rural credit markets since the establishment of Federal Land Banks in 1916. These programs have employed various methods to promote income redistribution, economic growth, price stability, and capital availability. Examples include low-interest loan programs of USDA's Farmers Home Administration (FmHA), the government's implicit guarantee of Farm Credit System securities, and the regulatory allowance for seasonality in the lending patterns of agricultural commercial banks.

State involvement in agricultural credit programs has been limited until recent years. Beginning in the 1970's, interest grew in designing programs that aug-

mented FmHA programs—with the earliest of these state programs helping beginning farmers to become landowners. In the early 1980's, the agricultural credit crisis spurred numerous new state programs, although many of these programs never received funding or lasted only a short time. The state programs that are developing today serve numerous purposes, and reflect several innovations in credit delivery, funding, and program viability.

What factors persuade state legislatures to start an agricultural credit program? First, the increased costs of adopting environmentally sound practices are considered worthwhile investments for public financing much like other infrastructure investments. Second, many states have recognized a need to provide financial assistance to farmers who have had to respond to dramatic changes in weather, national and global economic conditions, financial markets, technology, and even shifts in food consumption preferences. Third, changing political realities induce states to supplement Federal programs in order to preserve small farms, respond to conditions that threaten an economically prominent agricultural sector, or meet other specific state goals.

The total amount spent on all known state credit programs, some of which have been active for more than 50 years, is smaller than the outstanding loan balances of the FmHA direct loan program. For example, in 1993, FmHA made \$612 million in direct farm ownership and farm operating loans (representing approximately 140,091 borrowers) and another \$1.5 billion in loan guarantees. For this same period, the outstanding loan balance on FmHA's direct loan programs stood at \$14.0 billion.

This compares to a total outstanding loan balance for 1993/94 of just over \$1.8 billion for all known active state-sponsored agricultural credit programs, representing some 31,400 loans. Although FmHA's loan balance figures and those of all state-sponsored agricultural credit programs are not directly comparable, their comparison does provide a general sense of the size and scope of the state-level programs.

Farm Finance

Despite their small size relative to Federal credit programs, state credit program balances are significant considering that most state programs began after 1978 and have been operating during a period of very tight financial pressures. Although their total loan balance may be smaller, state credit programs have, in general, been better able to target aid to specific needs and therefore make more efficient use of each dollar invested, according to a 1987 Florida State University study.

State programs often target borrower groups that are not specifically addressed by Federal programs, or groups that wield more political power on the state than on the Federal level. Funding methods selected by states attempt to balance broader public concerns with available revenues of the state and yet ensure adequate capital for program operations. Two funding methods—linked deposits and revolving loan funds—illustrate the adaptive nature of state program funding methods for addressing specific borrowers' needs.

Unlike Federal loan programs—which rely primarily on Congressional appropriations—linked deposit program parameters can be tailored to target capital for a wide range of farm loans. States accept lower interest earnings on state investment funds in exchange for a corresponding reduction in the interest rates paid by farmer-borrowers on commercially provided loans to fund operating expenses, alternative crops, land purchases, beginning farmer loans, and waste management improvements. To make such a "deposit," a state might purchase a low-yield certificate of deposit from a commercial bank or a savings and loan association, or a bond from a Farm Credit System lender. Proceeds from the certificate of deposit or bond purchase fund the farm loan. Thus, the loan is "linked" to the deposit.

Revolving loan funds are another funding method used by states to tailor loans to meet farmers' borrowing needs. Some programs offer financing for one loan purpose, while others cater to several types of borrowers under one loan program. Revolving loan funds address diverse borrowing needs including support

for distressed farmers, crop diversification, soil conservation, operating expenses, assistance to beginning farmers, and energy efficiency.

Revolving loan funds typically use legislated appropriations for initial capital. Loan repayments, proceeds from loan sales, and other income are used to recapitalize the funds. Additional capital may be added to the funds, providing either fund expansion or the replenishment of fund losses due to loan defaults or slow repayment.

New Goals Are Targeted

While the state programs are providing credit assistance to meet widely different purposes, several types of programs—those which assist beginning farmers, promote the cultivation of new crops, and facilitate environmental improvements—are much more evident now than half a decade ago.

Beginning farmer programs are now active in 17 states, and will likely increase in number. Assisting successful entry into farming has a long history as a major goal of farm credit assistance. However, the rising average age of farmers and the growing cost of acquiring a farm of economical size are issues giving heightened priority to beginning farmer programs at both state and Federal levels.

State-sponsored programs are concentrated in the middle U.S., and nearly all the midwestern states provide beginning

farmer assistance. Beginning farmer programs concentrate on farm real estate loans, but assistance for production credit is often also available.

Some of the state beginning farmer programs operate under cooperative funding efforts with FmHA. In these cooperative efforts, FmHA agrees to provide either direct financing for a downpayment, or a 90-percent loan guarantee for farmers participating in the state's beginning farmer loan programs. FmHA was working with 12 states—Arkansas, Missouri, Colorado, Illinois, Nebraska, Iowa, North Dakota, Minnesota, Wisconsin, Oklahoma, Pennsylvania, and North Carolina—as of September 1994.

The downpayment loan option is meant to ease the transfer of farm ownership from retiring to beginning farmers. FmHA has targeted 55 percent of all direct farm ownership loans to be allocated to this program in FY 1994, with an increase to 65 percent by FY 1996.

Private-use tax-exempt bonds is another program for financing beginning farmers. This program can be used to make the returns on qualified loans to beginning farmers exempt from Federal income taxes. Loan funds are converted from small-issue, private-activity bonds. This funding method is used primarily for beginning farmer and rancher programs, although some states make broader use of the bond financing by using it to make vertical integration or environmental improvement loans. In exchange for Federal income tax benefits, program guidelines are determined in large part by Federal requirements.

Eight states are currently operating credit programs for promoting alternative crop production. These programs narrowly target assistance to promote innovation and diversity in the state's agricultural sector on a small scale. Most programs encourage "nontraditional" crops, including those which may be "traditional" in other areas of the country but are new to most farmers in the state. Iowa's credit assistance program for alternative crops, for example, includes horticultural crops, since most are not among the state's traditional major crops.

For more on state ag credit programs . . .


The study results on state agricultural credit programs discussed in this article are described in detail in a staff report by USDA's Economic Research Service—*Handbook of State-Sponsored Agricultural Credit Programs*, ERS Report No. AGES 9426, November 1994. (Call 202-501-6751 for a free copy).

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New crops can also be products that are either seldom grown commercially, or are produced in a significantly different manner. Direct loan programs are the most commonly used funding method for programs of this nature.

Eleven states are now operating agricultural credit programs designed to facilitate environmental improvements. These credit programs promote soil and water conservation measures, water quality improvements, equipment to control pollutants and contaminants, energy conservation methods, protective measures to preserve wildlife habitat, and methods to mitigate damage from natural disasters. These programs utilize direct and insured loans, as well as linked deposit and grant programs, to encourage adoption of environmentally sound improvements.

Overall, states are well positioned to respond to the specialized borrowing needs of farmers and ranchers in their geographical areas. In 1994, 32 states actively sponsored 81 agricultural credit programs. These state programs are increasingly addressing issues involving environmental concerns and cultivation of new crops, which help state agriculture sectors adapt to the changing dimensions of today's economy.

[Audrae Erickson (202) 501-6747 and George Wallace (202) 501-6751] 

A review of ag credit providers:

- Commercial banks
- Farmers Home Administration
- Farm Credit System

**In the December issue of
Agricultural Outlook**

Environment & Resources



Bureau of Reclamation

Salmon Recovery: Impacts on Agriculture

Salmon populations in the Columbia and Snake Rivers of the Pacific Northwest have declined precipitously over several decades. Since 1991, the Federal government has listed the Snake River sockeye, spring chinook, and fall chinook salmon runs as "endangered" under the Endangered Species Act. This action set the Federal regulatory machinery in motion to develop and implement a recovery plan for the listed salmon runs.

Because the salmon habitat encompasses much of the Columbia and Snake Rivers and their tributaries, a recovery plan may affect water use throughout the Pacific Northwest regional economy. Agriculture is among the sectors potentially affected by changes in river system management, along with electric power utilities, municipal and industrial consumers of electricity, river transportation, fishing, and forestry. According to a re-

cent report by USDA's Economic Research Service (ERS), several potential salmon recovery measures could affect crop production and agriculture-related employment and income in the region.

Agriculture accounted for almost \$5 billion (about 3 percent) of total output in the Pacific Northwest region—Idaho, Oregon, and Washington—and 166,000 (nearly 3 percent) of the workers in 1990. Food processing was valued at \$9 billion and employed 158,000 workers. Major crops in the region include wheat, barley, hay, Irish potatoes, and sugarbeets. Wheat and barley production represented 13 and 23 percent of the national total, while sugarbeets and potatoes accounted for 16 and 49 percent.

The major source of the declining salmon runs is the regional system of 150 dams used for hydroelectric power generation and other purposes. This system reduced salmon populations by impeding access to spawning grounds, impairing downstream migration of juveniles, and outright blocking of runs in some areas. Irrigation diversions, grazing, mining, and logging further contributed to habitat degradation. And commercial, sport, and subsistence fishing directly reduced salmon stocks.

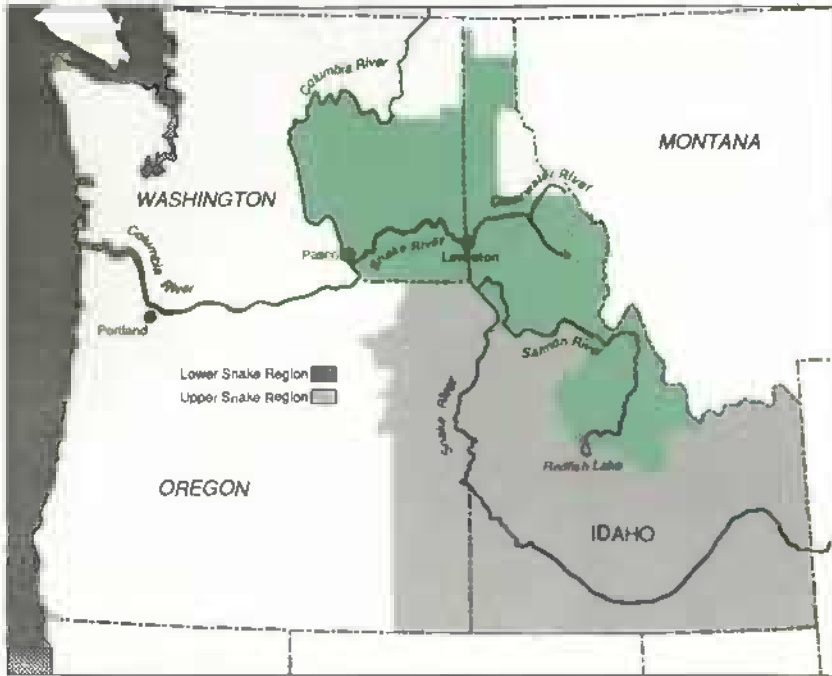
In an increasingly contentious policy environment, interest groups are gearing up to compete for future, reduced access to this region's water resources. These groups include farmers, electricity consumers, barge companies, Native American communities, commercial fishing operations, and environmental and wildlife organizations.

Two Measures Would Affect Crop Production

A salmon recovery strategy will operate under provisions of the Endangered Species Act (1973) and the Northwest Electric Power Planning and Conservation Act (1980). As the lead agency for recovering the three salmon runs listed under the Endangered Species Act, the National Marine Fisheries Service has responsibility for developing a recovery plan in cooperation with other Federal agencies. These agencies include the Army Corps

Environment & Resources

Salmon Recovery Plans Could Affect Agriculture In the Snake River Basin



of Engineers, the Bonneville Power Administration, Bureau of Reclamation, and Federal Energy Regulatory Commission.

The Northwest Power Act mandates that fish and wildlife be treated equally with other river uses. This act also established the Northwest Power Planning Council to oversee interstate management of fish and wildlife and other water uses in the Columbia River Basin.

While current studies are exploring the economic and biological feasibility of many proposed measures to restore the salmon runs, the recent ERS study focused only on the two measures having the greatest potential impact on crop agriculture—reservoir drawdown and flow augmentation in the Snake River Basin. These measures are designed to increase the velocity of river flow in order to assist downstream migration of juvenile salmon.

Although restoration of riparian habitat affects livestock grazing on public lands—and was examined in a 1992 U.S. Forest Service study—habitat restoration does not significantly affect crop production. Other measures such as barging ju-

venile salmon and improving hatchery practices would not affect agriculture. These last three options were not analyzed in the ERS study.

Reservoir drawdown involves significant lowering of four Lower Snake River reservoirs between Lewiston, Idaho and Pasco, Washington. Because barge traffic would be curtailed during the drawdown period, this measure would induce cost increases in transporting grain for farmers in the Lower Snake region. Moreover, this strategy alters the management of river flow designed to maximize generation of hydroelectric power; hence it would raise power rates for agriculture and other sectors in many areas of the Northwest. In addition, reservoir drawdown may involve modification of irrigation pump stations at one Lower Snake reservoir.

The second measure, flow augmentation, calls for acquiring additional instream flows from the Upper Snake River in order to push more water through the system of Lower Snake reservoirs. This measure will likely reduce irrigation water supplies to southern Idaho and eastern Oregon producers. These water supply reductions could induce several

producer responses, such as switching production from irrigated acreage to dryland acreage, and substituting water-conserving crops for water-intensive crops.

The ERS study examined high and low options of these two recovery measures. These options, individually or combined, represent possible elements of a strategy for managing Snake River flow. For Lower Snake producers, a low option of reservoir drawdown would last 2 months during the spring; the high option would last 4 1/2 months during spring and summer. For Upper Snake producers, a low option of flow augmentation calls for irrigation water-supply reductions to achieve an additional 0.127 million acre-feet of river flow; the high option calls for water-supply reductions to achieve 1.127 million acre-feet of flow augmentation.

Primary & Secondary Effects Are Small

The primary effects of these salmon recovery options are measured by changes in economic profits from crop production. For the Pacific Northwest, increases in power rates and transportation costs due to reservoir drawdown appear to cause minor reductions in producer profit. For both the low and high

For more on salmon recovery . . .

The economic effects on agriculture from potential salmon recovery measures in the Pacific Northwest are described in detail in a report by USDA's Economic Research Service—*Salmon Recovery in the Pacific Northwest: A Summary of Agricultural and Other Economic Effects*. ERS Report No. AIB-699, June 1994. (To order call 1-800-999-6779—the cost is \$7.50 per copy).

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options, profits fall by less than 1 percent, or less than \$10 million per year. Producers in the Lower Snake region bear most of these losses.

The large reduction in irrigation water supply to Upper Snake producers induces the greatest effect on economic profits. Producer profits fall almost 3 percent in the Pacific Northwest, or by \$30-\$35 million, including losses of \$27 million concentrated in the Upper Snake region. The large water reduction causes producers to reduce production of alfalfa, sugarbeets, dry beans, and to a smaller extent, potatoes, on irrigated land, and to increase dryland acreage of wheat, barley, and alfalfa.

Some observers suggest that farm profit losses due to reduced irrigation water diversions could be partially or wholly offset by monetary compensation through water markets or other forms of compensated transaction. The Bonneville Power Administration and the Bureau of Reclamation are exploring options for acquiring water in the Upper Snake River Basin through voluntary transactions.

The direct impacts on crop production and agriculture-related industries produce secondary effects in other sectors of the Pacific Northwest economy. Net changes in income (the sum of wages, profits, and rents) and employment provide measures of the regional impact of these recovery options.

Changes in total annual income in the Pacific Northwest would amount to less than 0.1 percent from a base of \$163 billion—regardless of which option is evaluated. Large irrigation water reductions reduce agricultural jobs by almost 2,700 (1.6 percent) and total jobs by 5,500 (0.1 percent). Capital expenditures on irrigation pump modifications and water diversion screens creates up to

1,500 short-term jobs in the Pacific Northwest economy, of which 500 are located in the Lower Snake region.

The impact on income and jobs are minor relative to the level of total economic activity in the Pacific Northwest economy. However, large reductions in irrigation water supplies produce noticeable impacts on the smaller Upper Snake subregional economy, reducing total income by \$83 million, or by about 0.6 percent. Job losses in agriculture amount to 2,500 or 7 percent. Total employment would fall by 4,100 jobs, or by almost 1 percent. Most job losses outside agriculture occur in the service sector. If producers were compensated for reducing their use of Upper Snake waters, expenditure from this compensation could restore 500 service jobs in the Upper Snake regional economy.

What do we make of these results? For the regional economy of the Pacific Northwest, the impacts are small. For the smaller Upper Snake subregion, a large reduction of irrigation water supply would alter cropping patterns and increase unemployment slightly. However, longer term dynamic adjustments in the economy could mitigate some of these impacts.

There is little precedent for developing resource management plans on this scale. Economic development of the Columbia-Snake River system forms the backbone of this diversified economy. For the regulatory agencies involved in salmon recovery, the challenge will be to construct an effective regional salmon recovery policy which both minimizes the costs to the region's economy and fairly distributes the burden of reduced access to a shared resource.

[Stephen Vogel (202) 501-8282, Marcel Aillery (202) 219-0412, and Michael Moore (202) 219-0411] AO

Upcoming Reports—USDA's Economic Research Service

The following reports or summaries will be issued at 3 p.m. ET on the release dates shown.

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Special Articles



New Global Trade Rules To Benefit U.S. Agriculture

After 7 years of intense negotiations, 117 nations signed a historic trade agreement last spring, the culmination of the "Uruguay Round" of the General Agreement on Tariffs and Trade (GATT). No area of this ambitious reform of the world trading system represents a more significant accomplishment than the new rules which will open world agricultural markets.

The global trading environment for agriculture has been dominated by high tariff and nontariff barriers to trade, internal support measures that encourage inefficient production and suppress consumption, and strong competition from subsidized exports. These practices, many of which were banned or severely restricted in other sectors under previous GATT agreements, had made agriculture one of the most distorted segments of world trade.

Access to many markets for U.S. agricultural exports will improve substantially under the Uruguay Round agreement. And required reductions in trade-distorting internal support, export subsidies, and import protection will reverse the protectionism that has shut U.S. exports out of a number of growing markets.

Increased global income and demand, the opening of markets, and reductions in subsidized competition under the Uruguay Round are projected to increase U.S. agricultural exports by \$1.6-\$4.7 billion (4-10 percent) in 2000, and by \$4.7-\$8.7 billion in 2005 (8-15 percent), according to a study released last spring by USDA. Grains and animal products account for almost 75 percent of the increase. Increased U.S. exports will also mean more export-related jobs, particularly exports of high-value and value-added products.

Increased exports will raise farm prices, increase farm income, and lower government outlays on price and income support programs. Farm income is expected to rise by \$1.1-\$1.3 billion in 2000, while government outlays are projected to decline by \$0.7-\$1.3 billion. In 2005, farm income is projected up by \$1.9-\$2.5 billion, and government outlays could decline by \$2-\$2.6 billion.

Perhaps even more important for the future of agricultural trade is the discipline that the Uruguay Round applies to countries that otherwise might choose the direction of closed markets and high internal supports and prices—which induce high-cost production and suppress consumption, and can lead to subsidized exports.

The Uruguay Round represents the critical first step in establishing a level playing field for world agricultural trade. To keep the process moving forward, GATT members have committed to reconvene discussions on agricultural trade liberalization after 5 years. The Uruguay Round Agreement will not take effect in the U.S. until Congress adopts the implementing legislation. Both houses of Congress are scheduled to vote on the Uruguay Round legislation by early December.

Key Provisions For Agriculture

The Uruguay Round agreement represents a dramatic change in direction for agricultural trade. It halts the further development and future adoption of the most serious trade-distorting practices and mandates reductions in many of those currently in place. The agreement also establishes important principles, like tariffication of nontariff barriers, and makes possible in future GATT rounds the negotiation of reductions in ordinary tariffs that will replace nontariff barriers.

Provisions for agriculture cover four areas—market access, internal supports, export subsidies, and sanitary and phytosanitary rules—and will be implemented over a 6-year period (1995-2000) in developed countries. Developing countries will have 10 years to implement the new rules, and the reduction commitments are less than those for developed countries—generally two-thirds of corresponding commitments.

- *Minimum market access provisions* will pry open global markets by eliminating outright import bans, and by increasing access in countries where little or no trade has oc-

curred. At the beginning of the transition period, quotas, variable levies, discretionary licensing, monopoly state trading, and other *nontariff barriers must be tariffed*—replaced with bound ordinary tariffs that cannot be increased without providing compensation to affected trading partners. *Current access requirements* assure that trade will not be reduced because of tariffification. And *tariffs on all agricultural products in developed countries must be reduced* by a minimum 15 percent over 6 years, and must decline on average by 36 percent.

- *Domestic producer support measures that distort trade are limited*, and restrictions are placed on their expansion or adoption. Total internal support must be reduced by 20 percent over 6 years from the level of the 1986-88 base period. These restrictions provide a guarantee that agricultural policy reforms already adopted, such as the European Union's reform of the Common Agricultural Policy, cannot be reversed; and they prevent developing countries from adopting highly protective policies that heavily subsidize agriculture as they develop.
- *U.S. deficiency payments and other direct producer payments that meet certain criteria*—payments made on a fixed quantity and on less than base-period production—are exempted from the reduction in internal support for the 6-year implementation period. Support measures agreed upon as non-trade-distorting—including conservation measures, crop insurance and disaster assistance, extension programs, and income payments that are not based on current production levels—are exempt from the reduction requirements.

- The use of *agricultural export subsidies will be limited* for the first time under GATT rules. By 2005, subsidized exports must be reduced 21 percent in volume and 36 percent in budget outlays below the 1986-90 base. Under the flexibility provisions, countries may phase in the export subsidy reductions for any commodity in equal annual increments from 1991-92 levels over 6 years. Products that did not receive export subsidies in the 1986-90 period will be ineligible for export subsidies in the future.
- The Uruguay Round agreement specifies that any *sanitary or phytosanitary measure* taken by an importing country for the purpose of protecting human, animal, or plant life or health must be based on science, and must be applied equally to imports and domestic production. The sanitary and phytosanitary provisions prevent countries from erecting barriers to trade in the guise of health-related regulations, while assuring every country's right to protect the health of its citizens. Countries may maintain standards that are stricter than international standards if scientific justification exists for taking the stricter measure.

New procedures to ensure effective enforcement of the agreement were also created under the Uruguay Round. Time limits are set for each stage of the dispute resolution process, and no country can block the formation of a GATT panel or block the adoption of a GATT panel report. And the Uruguay Round establishes a stronger, more efficient organization, the World Trade Organization (WTO), to facilitate trade relationships among countries and resolution of disputes.

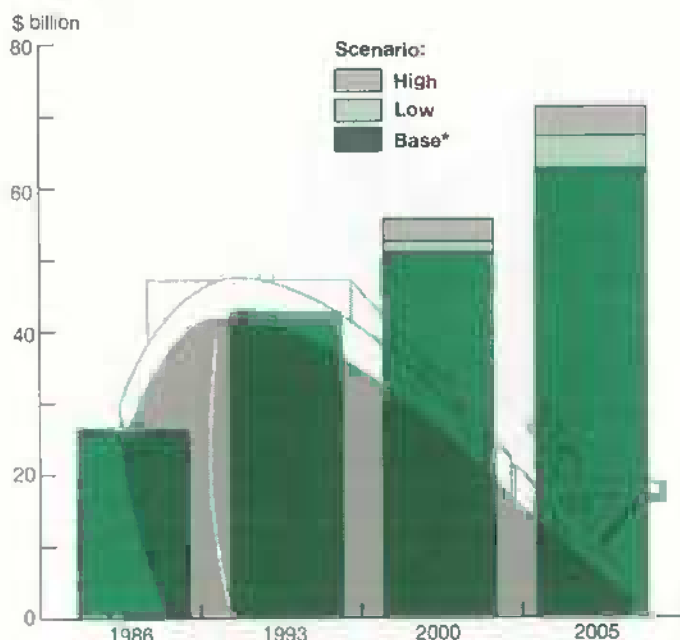
Policy Adjustments & Longer Term Benefits

Under the Uruguay Round of the GATT, the U.S. would need to make several adjustments in agricultural policy, including changes in its export subsidy programs and in policies related to market access. Because the U.S. has already reduced its internal supports by more than 20 percent since the 1986-88 base period, no further adjustments to internal supports are required to meet commitments under this part of the agreement.

U.S. commitments on market access mean that Section 22 quotas and the U.S. Meat Import Law would be replaced with tariff-rate quotas with fixed tariffs on over-quota imports. The out-of-quota tariffs initially will afford approximately the same level of protection the quotas had provided. In addition, a special safeguard will be available if there is a surge in imports or if import prices drop significantly.

U.S. exports under the Export Enhancement Program (EEP), the Dairy Export Incentive Program (DEIP), the Sunflowerseed Oil Assistance Program (SOAP), and the Cottonseed Oil Assistance Program (COAP) would be reduced on a commodity basis by 21 percent in quantity terms and 36 percent in value from the 1986-90 base.

GATT Accord Is Expected To Boost U.S. Agricultural Exports



*Analysts' expectations under current programs.

Special Articles

The Administration has committed to use these and other export programs to the maximum levels allowed under GATT and U.S. laws. The Administration has indicated it will request that Congress fund these programs to the fullest extent allowed under the Uruguay Round for the 6-year period covered by the agreement. As part of the implementation of the Uruguay Round, the Administration has decided to refocus EEP and DEIP so that in addition to their current use in combating unfair trade practices, they can also be used for market promotion and expansion.

The Administration also has indicated that it will propose increases in GATT-consistent agricultural programs by \$600 million over the next 5 years to provide broad support for market development of U.S. agricultural products. Direct spending, direct credits, and credit guarantees will be employed, and the effort will include funding for the Market Promotion Program and other programs that will aid a wide range of commodities including dairy, oilseed products, and high-value products. Assistance will be provided to help develop alternative uses for agricultural products as well.

Effects of the Uruguay Round agreement will be felt immediately, but longer term benefits are also important. The most immediate impacts of the agreement will result from the market access commitments. For example, Japan and Korea must abolish their rice import bans and open their markets to imports in 1995. To meet minimum access commitments, Japan will import almost 400,000 tons of rice in 1995, about 3 percent of world trade. The sanitary and phytosanitary provisions also should impact trade shortly after the agreement is implemented, as unjustified health-related barriers to imports are challenged.

The impacts from reductions in tariffs and the quantity and expenditure on subsidized exports are more gradual. Tariffs and export subsidies are reduced in equal annual installments; thus the impacts are modest initially but are quite significant by the end of the implementation period. The European Union's subsidized wheat exports, for example, will be about 7 million tons less in 2000 than in 1991/92.

While much attention has focused on the immediate improvements in market access and the cuts in subsidized exports under the Uruguay Round, broader benefits will also be realized in the long term. The agreement is expected to stimulate general economic growth worldwide, increasing global demand for food, feed, and fiber. The largest increases in incomes are expected in developing countries where the propensity to spend additional income on food and fiber is high. Due to the cumulative nature of the growth in world income, most of its impacts on commodity markets will occur after 2000.

Economic Impacts On U.S. Agriculture

The economic effects of the Uruguay Round on U.S. agriculture were analyzed in a joint study released last spring by USDA's Office of Economics and Economic Research Service.

Four important summary measures of the effects of the Uruguay Round on U.S. agriculture are exports, aggregate farm sector income, export-related employment, and government outlays. The Uruguay Round is projected to result in higher U.S. exports, more export-related jobs, and higher aggregate farm sector income in 2000 compared with projections which exclude the Uruguay Round. Net farm program outlays are projected to decline. Larger gains are projected by the year 2005 because of world income growth due to the Uruguay Round.

The Uruguay Round Agreement will increase demand for U.S. exports significantly. The USDA analysis estimates that U.S. exports will increase in value by \$1.6-\$4.7 billion, 4-10 percent, in 2000. U.S. exports will increase in value by \$4.7-\$8.7, 8-15 percent, in 2005. Additional exports of grains and animal products are expected to account for almost 75 percent of the total export value expansion by 2005.

Net farm sector income is expected to rise by \$1.1-\$1.3 billion in 2000 and by \$1.9-\$2.5 billion in 2005, in spite of reduced deficiency payments and increases in input costs such as feed. Prices will increase for most U.S. crops and livestock products. Production also will increase for most products, and combine with higher prices to increase farm market receipts significantly.

Increased production, transport, processing, and marketing of agricultural products results in increased employment for the U.S. economy. Increased exports due to the Uruguay Round Agreement are projected to create an additional 41,000 to 112,000 jobs in the year 2000 and 105,000 to 190,000 jobs in 2005.

Increased exports will raise farm prices, which will lower deficiency payment rates, and export subsidy expenditures will be reduced. The reduction in government outlays due to lower deficiency payment rates will be offset somewhat by lower acreage reduction program requirements. Nonetheless, deficiency payments could fall by \$0.4-\$1 billion in 2000 and by \$1.7-\$2.4 billion in 2005. Feed grains account for almost 60 percent of the reduction.

Expenditures on export subsidies will be reduced by 36 percent from 1986-90 levels. This will mean a decrease in annual program levels of over \$500 million by the end of the implementation period (2000) and beyond. Commodity Credit Corporation outlays for dairy will rise because increased imports and the reduction of dairy export subsidies will raise net removals.

Prosperity and growth in U.S. agriculture is critically dependent on continuing growth in exports. Over 30 percent of U.S. cropland and crop production is effectively dedicated to production for exports. Growth in productivity in U.S. agriculture continues to increase several times as rapidly as domestic U.S. demand for agricultural products. U.S. agricultural exports must continue to grow—otherwise, resources must be withdrawn from agriculture and it must shrink. About 96 percent of the world's population lives outside the U.S. The future of U.S. agriculture depends on increased access to foreign markets. [Joe Glauber (202) 720-4164, Gene Hasha (202) 219-0818, and Michael Herlihy (202) 219-0628] **AO**



GATT: Implications for U.S. Ag Export Programs

Provisions of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), awaiting Congressional approval, will have direct and indirect effects on U.S. agricultural export programs. A principal result of the Uruguay Round agreement will be a reduction in agricultural export subsidies worldwide. A key question policy makers face in the aftermath of a successful GATT is whether, and how, to change the types and the targets of export assistance programs.

The U.S. government supports a variety of agricultural export programs to boost U.S. shipments. These include programs that help U.S. exporters compete in terms of price, assist importers in obtaining credit to purchase U.S. commodities, influence consumer tastes and preferences, and provide food aid. Some U.S. agricultural commodities rely heavily on export programs. For example, about 80 percent of U.S. wheat is shipped under some form of government program.

In fiscal 1994, program levels for U.S. agricultural export assistance programs totaled about \$8 billion. The Administration has proposed increasing assistance to agricultural export programs not facing Uruguay Round reductions by up to \$600 million over the next 5 years.

How export assistance is provided depends on the time horizon in which benefits are to be realized. In the short run, price subsidies are the fastest way to increase sales, especially in the face of a competitor's subsidized pricing practices. Prime markets for price subsidies, however, are those that will continue to buy U.S. commodities when subsidies cease.

Credit guarantees can help buyers who are experiencing short-term foreign exchange constraints, but have limited long-term effects on U.S. exports. Export gains from market promotion programs are realized over a greater period of time than price subsidies and credit guarantees, but typically require longer term investment.

Food aid is the most expensive short-term means to ensure export shipments. But when combined with other economic assistance programs, food aid has the potential to generate economic growth in recipient countries, and may lead to greater imports of U.S. agricultural products in the long term.

Several studies have examined the impact of government export assistance on trade, reaching a number of conclusions. First, the effects of export subsidies are dependent on market conditions: their effectiveness is greatest when surpluses exist and weakest when supplies are tight. Second, credit guarantees cannot fully compensate for elimination of price subsidies because the savings on interest expenses to importers are much smaller than the savings from price subsidies. Finally, market promotion programs for U.S. exports yield positive returns on investments.

A central question is how most effectively to assist U.S. agricultural exports in the future, and thus continue to support farm income. Because each commodity market has unique characteristics, and importers have different needs, no one program is sufficient. Thus, flexibility is needed to assist U.S. exporters in an increasingly liberalized trading environment.

GATT Accord To Reduce Export Subsidies

One of the chief goals of the Uruguay Round agreement is to reduce the volume and value of export subsidies. By the end of the 6-year phase-in period for the agreement, countries will be required to reduce, on a commodity basis, subsidized export volume 21 percent and subsidy expenditures 36 percent from the 1986-90 base period.

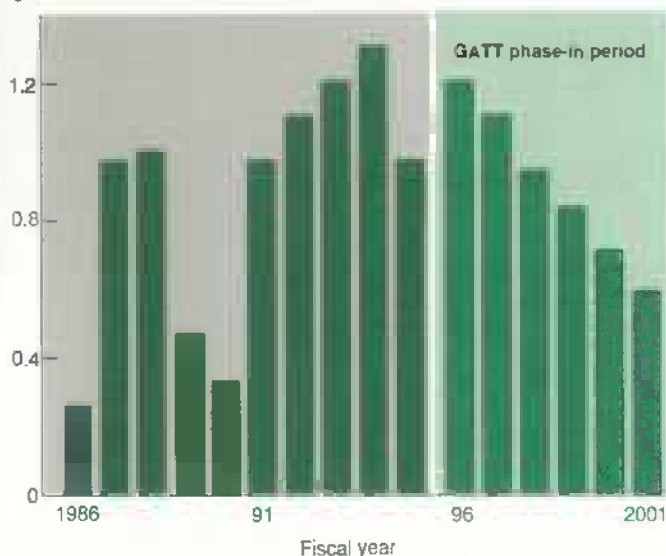
Negotiations in Brussels culminated in a GATT agreement in December 1993 that requires member nations to phase down export subsidies in equal increments from 1991-92 levels if these subsidies were higher than those of the 1986-90 base period. Only products whose exports were subsidized during the 1986-90 base period will be eligible for future export subsidies.

Although the European Union (EU) is the largest subsidizer of agricultural exports—with an average annual export subsidy outlay of \$12 billion between 1986-90, several additional Euro-

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U.S. Export Price Subsidies Would Drop Under GATT

\$ billion



Includes Export Enhancement Program, Dairy Export Incentive Program, the Cottonseed Oil and Sunflowerseed Oil Assistance Programs, and CCC dairy sales.
1986-94 actual expenditures, 1995 appropriations.

pean countries (including the Czech Republic, Hungary, and Sweden) and others provide direct export subsidies in years of surplus grain harvests. These subsidies will be reduced in the future as a result of GATT.

The U.S. is a major subsidizer of agricultural exports. The largest U.S. export price subsidy program is the Export Enhancement Program (EEP), with fiscal 1995 appropriations of \$800 million, down from 1994 spending of \$1.15 billion. Smaller programs include the Dairy Export Incentive Program (DEIP) and the Cottonseed Oil and Sunflowerseed Oil Assistance Programs (COAP and SOAP). Exports under EEP and these other price subsidy programs will be reduced on a commodity basis under the Uruguay Round Agreement.

The majority of U.S. export subsidies have assisted exports of wheat, dairy products, and vegetable oils. These subsidies have been especially important for several commodities. Shipments under EEP in fiscal 1993 accounted for 93 percent of U.S. barley exports, about 70 percent of table-egg exports, 60 percent of wheat shipments, and 55 percent of wheat flour exports. In total, EEP, COAP, and SOAP accounted for 73 percent of fiscal 1993 combined exports of cottonseed oil, soybean oil, and sunflowerseed oil.

U.S. implementing legislation for the Uruguay Round agreement will remove the legislative requirement that the EEP be used only to discourage unfair trade practices. DEIP regulations will be changed similarly. The SOAP and COAP do not have such requirements. The Administration has committed to use these and other programs to the maximum levels allowed under the Uruguay Round agreement and U.S. laws.

Credit Guarantees To Continue

Many importers face foreign exchange constraints and need credit to purchase food. To assist U.S. exporters in these markets, the Commodity Credit Corporation (CCC) operates the Export Credit Guarantee Program (GSM-102) and the Intermediate Export Credit Guarantee Program (GSM-103). Annual export credit guarantee program levels have been about \$5.7 billion for the last several years, although actual sales have fluctuated.

The GSM-102 program, the largest U.S. agricultural export program, guarantees repayment of private commercial credit of up to 3 years for the export of selected agricultural commodities to specified countries; the GSM-103 program covers credit of 3 to 10 years. These programs enhance the ability of U.S. exporters to make sales.

Under the GATT accord, exporters' credit programs would not have to be curtailed, though Article 10 of the Uruguay Round agreement calls for exporters to develop and abide by guidelines governing export credits, credit guarantees, and insurance programs. The Organization for Economic Cooperation and Development has begun discussions on the nature of such guidelines.

Unrelated to the Uruguay Round agreement, another issue confronts U.S. credit guarantee programs. Current sales under GSM-102 are well below historic and authorized program levels. Recent political, economic, and social changes are creating private sectors throughout the world that would participate in agricultural trade with the U.S. if financing were available. The CCC will consider how to structure and fully utilize export credit and credit guarantee programs, taking into account the importance of these newly emerging markets.

New Opportunities for Market Promotion Programs

Programs such as the Foreign Market Development Program (FMD) and the Market Promotion Program (MPP), are not required to be reduced under the Uruguay Round agreement. These programs provide assistance through supermarket promotions, nutritional information, trade servicing, technical assistance to food processors, and advertising. The MPP (authorized in the 1990 Farm Act) and the FMD (first authorized in 1954) are jointly funded by USDA, cooperating nonprofit commodity organizations, and U.S. companies.

MPP and FMD activities provide the means to introduce consumers in newly opened international markets to U.S. agricultural products. And because the Uruguay Round agreement will reduce trade barriers in many importing countries, these programs have the potential to expand U.S. exports of a wide

variety of agricultural products. As import quotas are converted to tariffs and the tariffs reduced, opportunities for U.S. agricultural product exports will grow.

Unlike other U.S. export programs, the MPP primarily assists exports of high-value products. From 1989 through 1993, close to 80 percent of MPP funding (and that of its predecessor, the Targeted Export Assistance Program) assisted exports of high-value products, including meats, fruits, vegetables, tree nuts, and packaged grocery products. In contrast, 70 percent of funds for the smaller FMD helped develop markets for grains and oilseeds during the same period.

From 1989 through 1993, most expenditures for MPP and FMD were directed to Japan, other East Asian countries, and Western Europe. However, in 1993, many program participants expanded their activities in Mexico, the Caribbean, and Canada. In addition, some MPP and FMD participants made smaller investments in promotion activities in China, Central Europe, Indonesia, Malaysia, and Middle and Near Eastern countries that year.

The MPP and FMD differ from other export programs in that they are not tied to a specific shipment. Hence, linkages between promotions and sales to foreign consumers are less obvious than for other programs. Also, penetrating and expanding export markets through promotion programs is a long-term activity, where payoffs typically do not occur for some time after initial investments.

Studies of the impact of market promotion programs on U.S. exports for several agricultural products (cotton, fresh and processed citrus, and red meat) in the 1970's and 1980's show in-

creases in exports of several dollars for each dollar spent on promotion in export markets.

FMD funding is aimed chiefly at nonprofit commodity organizations that promote generic products such as cotton, rather than promoting specific corporate brands. In contrast, close to 40 percent of MPP funds are invested in jointly funded corporate promotions.

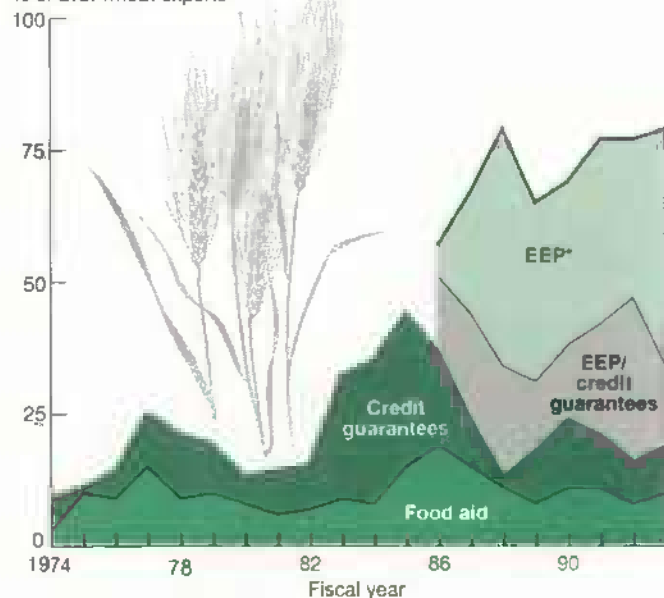
Many corporate participants in MPP are small firms which receive MPP assistance through regional trade associations. MPP allocations to regional trade associations in 1993 more than tripled from 1986 Targeted Export Assistance program allocations. MPP assistance to large processing firms and U.S. retail companies overseas may help these firms enter markets they would not otherwise consider, and promotion of specific brands of consumer-ready products can increase sales to brand-conscious foreign consumers.

For fiscal 1995, Congress appropriated \$85.5 million for the MPP, down from \$100 million in 1994 and a 50-percent drop from annual program funding from 1989 to 1992. Budget constraints are the primary reason for the decline. In addition, some policy makers perceive the MPP as assisting large, affluent firms that can finance their own advertising and promotions, which accounts for some of the decline in funding in recent years.

USDA contributed about \$20 million to FMD activities in 1995, down from \$34 million in 1994. USDA provides a large share of the funds for specific FMD and MPP activities, although the U.S. commodity organizations and companies also contribute funds and conduct the overseas marketing campaigns.

About 80 Percent of U.S. Wheat Exports Are Shipped Under Export Programs

% of U.S. wheat exports



*Export Enhancement Program.

The U.S. is not the only exporter to use market promotion programs to develop export markets for agricultural products. USDA's Foreign Agricultural Service has estimated that, in 1993, governments and producers in major agricultural exporting countries spent \$500 million for activities similar to those of the FMD and MPP. Other nations' market development programs also include activities such as manufacturer and retail price promotions which are not allowed under U.S. market development programs.

The appropriate role for the U.S. government is an issue for future market development programs. Much of the current funding for export promotion by other exporting nations comes from producer assessments and other industry contributions.

However, in the aftermath of the Uruguay Round, national and local governments may increase their contributions to export market development activities to compensate for reductions in export price subsidies. Already, quasi-governmental agencies in France and Germany, financed by national treasuries as well as producer assessments and user fees, conduct promotional activities and counsel firms about exporting. In addition, the national and regional governments in Spain took on the full financial burden of agricultural export promotion.

Special Articles

GATT & Budget Constraints To Affect Food Aid Programs

The U.S. has played a leading role in meeting the food needs of developing countries since the mid-1950's. The U.S. currently provides food aid through the P.L. 480 program (Food for Peace Program), through Section 416(b) of the Agricultural Act of 1949, as amended, and through the Food for Progress program (FFP).

P.L. 480 is comprised of the Title I, II, and III programs. Title I is a concessional sales program administered by USDA, while Titles II and III are donation programs administered by the Agency for International Development.

The section 416(b) program provides for overseas donation of surplus agricultural commodities owned by the CCC. The FFP provides food aid from CCC funds, Title I funds, or commodities under section 416(b) on a loan or grant basis for emerging democracies and for developing countries that are engaged in policy reforms to stimulate economic growth, particularly within the food and agriculture sectors. Both the Section 416(b) program and FFP are administered by USDA. Program levels for P.L. 480 have declined since 1993's record \$1.7 billion to an expected \$1.3 billion in 1995. Budget constraints account for much of the decrease.

The Uruguay Round agreement calls on signatory nations to abide by internationally-agreed-upon rules regarding food aid. These rules are designed to minimize disruption of commercial sales by food aid shipments.

The Uruguay Round agreement will have other impacts that affect the food aid needs of developing countries and food aid

availabilities of developed countries. First, the agreement calls for less government support for agricultural production, which is expected to increase prices for certain agricultural commodities. World agricultural prices for grains and other temperate zone products are expected to be 5 to 10 percent higher than before the agreement. However, ministers to the GATT also agreed to ensure that implementation of the Uruguay Round agreement would not adversely affect food aid commitments to meet legitimate food needs of developing countries.

Second, to the extent that prices in developing countries are elevated by higher world market prices, some increases in their food production would be expected, thus reducing the need for food aid. Finally, the rise in world food prices together with the GATT-required cut in export subsidies will raise the cost of imports to many developing countries. Reduced surpluses and higher commodity prices can reduce food aid supplies, as has happened recently.

Even before the Uruguay Round agreement is in place, factors affecting the level of U.S. food assistance have changed. Large agricultural surpluses often tapped for overseas food assistance have declined due to increasingly market-oriented domestic agricultural policies initiated in 1985 and 1990 farm legislation.

For example, in fiscal 1994, USDA made available about 200,000 tons of grains and dairy products for programming under Section 416(b), compared with 2.9 million tons in fiscal 1993. CCC-owned grain stocks are expected to be lower in 1994/95 than the year before, potentially limiting Section 416(b) food aid shipments. Finally, the budget for P.L. 480 is expected to decline about 15 percent in fiscal 1995 from last year.

[Karen Ackerman (202) 219-0243, Mark Smith (202) 219-0823, and Nydia Suarez (202) 501-8519] **AO**

New GATT report just released!

Effects of the Uruguay Round Agreement on U.S. Agricultural Commodities

On December 15, 1993, the United States reached an historic agreement concluding the Uruguay Round of Multilateral Trade Negotiations under the auspices of the General Agreement on Tariffs and Trade (GATT). Benefits arising from the agreement include:

- U.S. farmers will gain from the increase in world income that will arise from the Uruguay Round agreement.
- U.S. agricultural exports are expected to increase by between \$1.6 billion and \$4.7 billion in 2000 and between \$4.7 billion and \$8.7 billion in 2005.
- Increased exports mean more export-related jobs, particularly for high-value and value-added products.
- Increased exports will raise farm prices, increase farm income, and lower Government outlays on price and income support programs.

- Perhaps even more important for the future is the discipline the Uruguay Round will apply to countries that might otherwise choose closed markets, production-inducing internal supports, and subsidized exports. This agreement has important consequences for our large trading partners that are currently outside the GATT: China, Taiwan, and the nations of the former Soviet Union.

Provisions of the Agreement

The Uruguay Round (UR) Agreement is an historic effort to open world agricultural markets, prompting increased trade and dynamic growth. The agricultural agreement covers four areas implemented over a 6-year period, 1995-2000, export subsidies, market access provisions, internal supports, sanitary and phytosanitary measures.

To Get the Full Report...

The information presented here is excerpted from *Effects of the Uruguay Round Agreement on U.S. Agricultural Commodities*, Stock # GATT-1. Price is \$9.00 (foreign orders, \$11.25). To order your copy, please call our order desk toll-free at 1-800-999-6779. Or send your check to:

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Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1993	1994					1995		
	Annual	I	II	III	IV.F	Annual F	I F	II F	Annual F
Prices received by farmers (1977=100)	143	148	142	135	—	—	—	—	—
Livestock & products	162	161	154	148	—	—	—	—	—
Crops	123	134	130	121	—	—	—	—	—
Prices paid by farmers, (1977=100)									
Production items	179	181	184	181	—	—	—	—	—
Commodities & services, interest, taxes, & wages	195	198	200	199	—	—	—	—	—
Cash receipts (\$ bil.) 1/	175	177	185	—	—	—	—	—	—
Livestock (\$ bil.)	91	90	87	—	—	—	—	—	—
Crops (\$ bil.)	85	87	98	—	—	—	—	—	—
Market basket (1982-84=100)									
Retail cost	142	145	145	—	—	—	—	—	—
Farm value	105	108	102	—	—	—	—	—	—
Spread	162	166	168	—	—	—	—	—	—
Farm value/retail cost (%)	28	28	25	—	—	—	—	—	—
Retail prices (1982-84=100)									
Food	141	143	144	145	—	—	—	—	—
At home	140	143	143	145	—	—	—	—	—
Away from home	143	145	145	146	—	—	—	—	—
Agricultural exports (\$ bil.) 2/	42.6	11.1	10.3	9.3	11.8	42.5	—	—	43.0
Agricultural imports (\$ bil.) 2/	24.5	6.6	6.6	5.7	6.6	25.5	—	—	27.5
Commercial production									
Red meat (mil. lb.)	40,568	10,083	10,431	10,835	10,777	42,126	10,575	10,695	43,397
Poultry (mil. lb.)	27,539	6,891	7,371	7,610	7,345	29,217	7,200	7,705	30,385
Eggs (mil. doz.)	5,960	1,496	1,513	1,545	1,560	6,116	1,520	1,530	6,165
Milk (bil. lb.)	151.0	37.7	40.0	38.2	37.6	153.4	38.7	40.8	156.7
Consumption, per capita									
Red meat and poultry (lb.)	207.6	50.5	52.2	54.4	55.0	212.1	52.7	53.7	217.6
Corn beginning stocks (mil. bu.) 3/	1,100.3	2,113.0	5,936.5	3,995.7	2,359.9	2,113.0	850.2	—	850.2
Corn use (mil. bu.) 3/	8,478.1	2,525.7	1,948.8	1,642.1	1,511.3	7,627.9	—	—	8,635.0
Prices 4/									
Choice steers—Neb. Direct (\$/cwt)	76.36	73.10	68.79	65.85	67-69	68.94	66-70	66-72	65-71
Barrows & gilts—IA, So. MN (\$/cwt)	46.10	45.78	42.90	40.42	34-36	41.03	37-39	37-41	37-40
Broilers—12-city (cts./lb.)	55.2	55.1	60.0	55.9	53-55	56.3	57-61	53-57	52-56
Eggs—NY gr. A large (cts./doz.)	72.5	71.5	63.3	67.0	69-71	68.0	66-70	59-63	64-69
Milk—all at plant (\$/cwt)	12.80	13.57	13.03	12.50	13.20-	13.10-	12.40-	11.20-	11.90-
					13.60	13.20	13.10	12.20	12.80
Wheat—KC HRW ordinary (\$/bu.)	3.59	3.81	3.63	—	—	—	—	—	—
Corn—Chicago (\$/bu.)	2.38	2.97	2.75	—	—	—	—	—	—
Soybeans—Chicago (\$/bu.)	6.18	6.77	6.73	—	—	—	—	—	—
Cotton—Avg. spot 41-34 (cts./lb.)	55.4	70.7	77.4	71.0	—	—	—	—	—
	1986	1987	1988	1989	1990	1991	1992	1993	1994
Farm real estate values 5/									
Nominal (\$ per acre)	640	599	632	661	668	681	684	699	744
Real (1982 \$)	568	518	530	533	517	505	487	485	503

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages, Jan.-Dec. 5/ 1990-94 values as of January 1. 1986-89 values as of February 1. F = forecast. — = not available.

U.S. & Foreign Economic Data

Table 2.—U.S. Gross Domestic Product & Related Data

	Annual			1993			1994	
	1991	1992	1993	II	III	IV	I	II
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	5,724.8	6,020.2	6,343.3	6,299.9	6,359.2	6,478.1	6,574.7	6,689.9
Gross national product	5,740.8	6,025.8	6,347.8	6,303.3	6,367.6	6,476.2	6,574.0	6,682.5
Personal consumption expenditures	3,902.4	4,136.9	4,378.2	4,347.3	4,401.2	4,469.6	4,535.0	4,586.4
Durable goods	456.6	492.7	538.0	531.2	541.9	562.8	576.2	580.3
Nondurable goods	1,257.8	1,295.5	1,339.2	1,334.2	1,340.2	1,355.2	1,368.9	1,381.4
Clothing & shoes	213.0	227.7	235.4	233.2	235.9	240.7	241.9	243.9
Food & beverages	821.5	826.8	849.7	848.0	851.7	860.8	867.9	875.5
Services	2,188.1	2,348.7	2,501.0	2,481.9	2,519.1	2,551.6	2,589.9	2,624.7
Gross private domestic investment	744.8	788.3	862.0	869.7	882.2	922.5	966.6	1,034.4
Fixed investment	746.6	785.2	866.7	851.1	868.3	913.5	942.5	967.0
Change in business inventories	-1.8	3.0	15.4	18.6	13.9	9.0	24.1	67.4
Net exports of goods & services	-19.9	-30.3	-65.3	-83.3	-77.0	-71.2	-86.7	-97.6
Government purchases of goods & services	1,097.4	1,125.3	1,148.4	1,146.3	1,152.9	1,157.2	1,159.8	1,166.7
1987 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	4,867.6	4,979.3	5,134.5	5,105.4	5,139.4	5,218.0	5,261.1	5,314.1
Gross national product	4,882.3	4,985.7	5,140.3	5,110.1	5,148.4	5,218.7	5,262.7	5,310.5
Personal consumption expenditures	3,259.4	3,349.5	3,458.7	3,439.2	3,472.2	3,508.2	3,546.3	3,557.8
Durable goods	425.3	452.6	489.9	483.7	492.7	510.8	521.7	522.2
Nondurable goods	1,047.7	1,057.7	1,078.5	1,074.3	1,081.7	1,088.0	1,098.3	1,104.3
Clothing & shoes	184.7	193.2	197.8	196.1	198.6	202.4	203.8	204.9
Food & beverages	518.8	514.7	524.0	522.3	525.1	528.1	531.9	536.1
Services	1,786.3	1,839.1	1,890.3	1,881.2	1,897.6	1,907.4	1,928.3	1,931.4
Gross private domestic investment	683.8	725.3	819.9	806.2	821.8	862.5	898.9	950.9
Fixed investment	684.9	722.9	804.6	797.3	808.8	851.7	873.4	891.7
Change in business inventories	-1.1	2.5	15.3	18.9	13.0	10.8	25.4	59.2
Net exports of goods & services	-19.5	-32.3	-73.9	-69.3	-86.3	-82.2	-104.0	-111.8
Government purchases of goods & services	944.0	936.9	929.8	929.3	931.8	931.5	919.9	917.1
GDP implicit price deflator (% change)	3.8	2.8	2.2	1.8	1.0	1.3	2.9	2.9
Disposable personal income (\$ bil.)	4,236.6	4,505.8	4,688.7	4,678.6	4,700.5	4,777.6	4,832.6	4,913.5
Disposable per. income (1987 \$ bil.)	3,538.5	3,648.1	3,704.1	3,701.3	3,708.4	3,747.8	3,779.2	3,811.5
Per capita disposable per. income (\$)	16,766	17,836	18,153	18,141	18,174	18,421	18,588	18,853
Per capita dis. per. income (1987 \$)	14,003	14,279	14,341	14,351	14,338	14,451	14,535	14,625
U.S. population, total, incl. military								
abroad (mil.) 1/	252.6	255.5	256.2	257.8	258.5	259.2	259.9	260.5
Civilian population (mil.) 1/	250.5	253.5	256.4	256.0	256.7	257.5	258.1	258.8
	Annual			1993			1994	
	1991	1992	1993	Aug	May	June	July	Aug P
Monthly data seasonally adjusted								
Industrial production (1987=100)	104.1	106.5	110.9	111.1	116.6	117.3	117.7	118.5
Leading economic indicators (1987=100)	97.1	98.1	98.7	98.4	101.3	101.5	101.5	102.1
Civilian employment (mil. persons) 2/	118.9	117.6	119.3	119.7	122.9	122.4	122.5	123.2
Civilian unemployment rate (%) 2/	6.8	7.3	6.7	6.7	6.0	6.0	6.1	6.1
Personal income (\$ bil. annual rate)	4,860.3	5,154.3	5,375.1	5,415.4	5,665.4	5,674.9	5,702.9	5,726.8
Money stock-M2 (daily avg.) (\$ bil.) 3/	3,455.3	3,509.0	3,567.9	3,536.1	3,566.1	3,589.4	3,603.0	3,596.6
Three-month Treasury bill rate (%)	5.42	3.45	3.02	3.05	4.19	4.18	4.39	4.50
AAA corporate bond yield (Moody's) (%)	8.77	8.14	7.22	6.85	7.99	7.97	8.11	8.07
Housing starts (1,000) 4/	1,014	1,200	1,288	1,319	1,491	1,358	1,413	1,442
Business inventory/sales ratio	1.54	1.50	1.45	1.45	1.41	1.40	1.42	—
Sales of all retail stores (\$ bil.) 5/	1,863.0	1,959.1	2,081.6	174.3	183.4	185.1	185.1	186.6
Nondurable goods stores (\$ bil.)	1,209.5	1,251.8	1,297.0	107.9	111.5	112.2	112.8	113.3
Food stores (\$ bil.)	379.3	382.4	392.4	32.7	33.6	33.5	33.6	33.7
Eating & drinking places (\$ bil.)	194.1	200.6	211.0	17.8	18.6	18.7	19.0	18.8
Apparel & accessory stores (\$ bil.)	97.3	104.1	108.1	8.8	8.8	8.9	8.9	9.1

1/ Population estimates based on 1990 census. 2/ Data for 1994 are not directly comparable with data for 1993 and earlier years. 3/ Annual data as of December of the year listed. 4/ Private, including farm. 5/ Annual total. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 501-8541.

Table 3.—World Economic Growth

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993 E	1994 F	1995 F	Average 1984-93
Real GDP, annual percent change													
World	4.3	3.3	2.7	3.1	4.4	3.3	2.2	0.7	2.0	1.6	2.8	3.2	2.8
World, less U.S.	3.6	3.4	2.7	3.1	4.6	3.6	2.7	1.2	1.7	1.0	2.4	3.3	2.8
Developed	4.3	3.2	2.7	3.1	4.4	3.3	2.4	0.9	1.7	1.0	2.5	2.8	2.7
Developed, less U.S.	3.2	3.4	2.7	3.2	4.5	3.6	3.5	1.9	1.0	-0.1	1.8	2.7	2.7
United States	6.0	3.0	2.6	3.0	3.9	2.6	0.8	-0.7	2.6	3.1	3.8	3.0	2.7
Canada	6.4	4.7	3.3	4.1	4.7	2.5	0.4	-1.7	0.7	2.2	3.8	3.2	2.7
Japan	4.3	6.0	2.7	4.1	6.2	4.7	5.2	4.3	1.1	0.0	0.9	2.5	3.8
Western Europe	2.4	2.5	2.7	2.6	3.7	3.2	2.8	1.1	0.9	-0.5	1.9	2.7	2.2
European Union	2.3	2.4	2.7	2.7	3.9	3.3	2.9	1.5	1.1	-0.3	1.9	2.7	2.2
Germany	2.8	1.9	2.2	1.4	3.7	3.6	5.7	4.5	2.1	-1.2	2.0	2.7	2.7
Central Europe	4.2	2.4	2.9	2.2	2.2	-0.9	-6.5	-11.3	-4.7	0.8	2.0	3.1	-0.9
Former Soviet Union	4.1	1.7	3.0	2.8	5.3	3.0	-2.0	-11.6	-18.2	-13.0	-18.0	-4.0	-2.4
Russia	2.6	2.0	3.4	2.1	6.0	2.5	-2	-9	-19	-11.9	-11.2	-3.9	-2.9
Developing	4.3	3.9	3.5	4.0	4.4	3.7	3.5	3.7	5.2	5.0	5.0	5.8	4.1
Asia	7.4	6.2	6.3	7.4	9.1	6.6	6.1	5.1	7.0	11.4	7.4	7.0	7.2
Pacific-Asia	9.4	6.7	7.3	9.0	9.5	6.1	6.6	6.4	9.0	14.1	8.2	7.7	8.4
China	14.4	12.3	8.2	11.0	10.7	4.3	5.4	6.4	13.0	13.4	11.0	9.6	9.9
South Asia	3.9	5.6	4.9	4.8	9.4	5.1	5.5	1.8	4.0	4.1	5.3	4.9	4.9
India	3.7	5.4	4.1	4.9	9.7	5.0	5.8	1.2	4.5	4.1	5.5	4.9	4.8
Latin America	3.9	3.3	4.5	3.2	0.6	1.3	-0.1	3.1	2.2	-6.5	3.2	3.8	1.6
Mexico	3.7	2.7	-3.9	1.6	1.2	3.4	4.5	3.6	2.8	0.4	2.6	4.9	2.0
Caribbean/Central	0.5	2.2	2.1	2.8	-0.6	2.1	1.4	0.1	0.2	2.2	2.0	2.2	1.3
South America	4.1	4.0	7.1	3.5	0.4	0.5	-1.7	3.4	2.3	4.0	3.5	3.7	2.8
Brazil	5.4	7.9	8.0	3.3	-0.2	3.3	-4.2	0.9	-0.9	4.0	3.4	3.7	2.8
Middle East	0.3	-0.9	-6.9	-2.3	-2.5	2.3	3.1	1.9	7.5	4.7	3.4	3.9	0.7
Africa	1.0	3.1	2.2	0.6	2.9	3.4	2.1	2.1	1.2	2.0	2.3	2.7	2.0
North Africa	2.8	3.3	-0.3	0.2	1.5	3.8	2.2	2.8	1.4	1.6	2.3	2.7	1.9
Sub-Saharan	-0.1	2.9	3.8	0.8	3.7	3.1	2.0	1.6	1.1	2.3	2.5	2.6	2.1
Middle East & N. Africa	1.1	0.5	-4.7	-1.4	-1.1	2.8	2.8	2.2	5.4	3.6	3.0	3.5	1.1

E = Estimate, F = forecast.

Information contact: Alberto Jerardo, (202) 501-8318.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1993						
	1991	1992	1993	Sept	Apr	May	June	July	Aug R	Sept P
1977 = 100										
Prices received										
All farm products	146	139	143	145	146	142	139	133	137	134
All crops	129	121	123	128	131	131	127	118	123	122
Food grains	115	139	129	124	160	145	135	127	132	145
Feed grains & hay	117	116	115	114	135	135	131	117	113	111
Feed grains	115	114	110	109	128	127	128	112	108	105
Cotton	108	88	90	86	112	118	105	97	108	108
Tobacco	161	154	154	154	152	152	152	134	143	158
Oil-bearing crops	91	86	95	97	103	106	105	95	90	85
Fruit, all	264	175	175	258	153	155	142	137	178	169
Fresh market 1/	288	179	182	294	155	158	145	138	185	176
Commercial vegetables	135	156	159	147	117	124	138	138	141	150
Fresh market	140	156	166	161	109	118	133	134	139	152
Potatoes & dry beans	141	124	151	131	191	167	166	188	171	134
Livestock & products	161	167	162	160	161	154	148	147	150	146
Meat animals	180	178	183	181	178	169	160	160	165	157
Dairy products	126	135	132	132	139	133	131	127	129	131
Poultry & eggs	124	117	128	125	128	129	130	128	127	129
Prices paid										
Commodities & services	187	189	195	195	200	200	200	199	199	199
Interest, taxes, & wage rates	173	174	179	179	184	184	184	181	181	181
Production items	123	123	124	—	136	—	—	127	—	—
Feed	214	202	218	—	209	—	—	193	—	—
Feeder livestock	163	162	169	—	175	—	—	175	—	—
Seed	134	131	128	—	137	—	—	137	—	—
Fertilizer	151	159	165	—	168	—	—	168	—	—
Agricultural chemicals	203	199	201	—	195	—	—	201	—	—
Fuels & energy	157	150	180	—	158	—	—	158	—	—
Farm & motor supplies	244	258	272	—	288	—	—	284	—	—
Autos & trucks	211	219	227	—	240	—	—	240	—	—
Tractors & self-propelled machinery	228	233	243	—	258	—	—	258	—	—
Other machinery	148	150	159	—	166	—	—	166	—	—
Building & fencing	169	171	174	—	175	—	—	175	—	—
Farm services & cash rent	137	129	123	—	130	—	—	130	—	—
Int. payable per acre on farm real estate debt	165	172	180	—	189	—	—	189	—	—
Taxes payable per acre on farm real estate	201	210	217	—	224	—	—	224	—	—
Wage rates (seasonally adjusted)	172	173	178	—	183	—	—	180	—	—
Production items, interest, taxes, & wage rates	78	74	73	74	73	71	69	67	69	67
Ratio, prices received to prices paid (%) 2/	666	636	653	661	688	651	630	607	625	614
Prices paid, etc. (parity index) (1910-14=100)	1,285	1,303	1,340	—	1,379	—	—	1,368	—	—
Parity ratio (1910-14=100) (%) 2/	82	49	49	—	48	—	—	45	—	—

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities & services, interest, taxes, & wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly & will be published in January, April, July, & October. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 501-8541.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1993 Sept	1994					
	1991	1992	1993		Apr	May	June	July	Aug R	Sept P
CROPS										
All wheat (\$/bu.)	3.00	3.24	3.26	3.10	3.55	3.41	3.21	3.03	3.25	3.60
Rice, rough (\$/cwt)	7.58	5.89	8.08	5.21	9.93	10.00	8.88	7.80	8.75	6.69
Corn (\$/bu.)	2.37	2.07	2.50	2.21	2.85	2.80	2.81	2.28	2.16	2.09
Sorghum (\$/cwt)	4.01	3.38	4.16	3.69	4.20	4.20	4.24	3.71	3.73	3.52
All hay, baled (\$/ton)	71.20	74.30	81.60	78.80	98.20	100.00	88.70	82.50	83.10	82.40
Soybeans (\$/bu.)	5.58	5.56	6.40	6.21	6.57	6.77	6.72	5.92	5.58	5.31
Cotton, upland (cts./lb.)	56.8	54.9	59.0	51.9	67.7	69.3	63.5	58.4	65.5	65.1
Potatoes (\$/cwt)	4.96	5.62	6.22	5.11	7.78	6.63	6.58	7.54	6.86	5.29
Lettuce (\$/cwt) 2/	11.40	12.40	18.00	18.80	11.70	11.30	13.80	10.40	10.90	19.00
Tomatoes fresh (\$/cwt) 2/	31.80	35.80	31.80	29.80	18.50	20.80	29.10	27.50	33.50	24.80
Onions (\$/cwt)	12.50	13.00	15.80	13.20	10.20	8.34	8.25	12.80	9.13	9.52
Dry edible beans (\$/cwt)	15.60	19.90	24.10	21.30	25.80	25.20	25.30	27.20	24.80	20.90
Apples for fresh use (cts./lb.)	25.1	19.5	18.2	24.5	18.1	14.8	13.7	13.1	20.3	21.7
Pears for fresh use (\$/ton)	385.00	378.00	280.00	386.00	208.00	194.00	175.00	328.00	294.00	345.00
Oranges, all uses (\$/box) 3/	6.79	5.50	3.11	11.85	5.35	5.61	5.31	3.47	4.58	2.53
Grapefruit, all uses (\$/box) 3/	5.55	6.23	2.60	4.20	2.27	1.53	0.97	1.82	3.87	4.39
LIVESTOCK										
Beef cattle (\$/cwt)	72.87	71.33	73.38	71.40	72.00	67.20	62.70	62.90	65.90	64.30
Calves (\$/cwt)	99.93	89.38	95.92	93.50	95.70	89.80	84.90	83.90	84.50	82.10
Hogs (\$/cwt)	48.78	41.82	45.40	47.80	42.70	42.80	42.60	42.30	41.80	35.80
Lambs (\$/cwt)	52.49	60.78	64.60	64.50	54.70	54.70	61.10	72.00	75.00	73.10
All milk, sold to plants (\$/cwt)	12.27	13.15	12.88	12.80	13.50	12.90	12.70	12.30	12.50	12.70
Milk, manuf. grade (\$/cwt)	11.05	11.91	11.80	11.90	12.80	11.50	11.00	11.10	11.40	11.80
Broilers (cts./lb.)	31.0	30.8	34.2	36.5	35.3	37.1	37.7	36.9	35.1	35.5
Eggs (cts./doz.) 4/	66.0	58.2	62.7	55.5	61.7	58.2	58.2	57.2	59.9	60.5
Turkeys (cts./lb.)	37.7	37.6	39.0	41.1	39.1	39.5	40.0	41.2	41.7	42.6

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns.

4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. P = preliminary. R = revised.

— = not available.

Information contact: Ann Duncan (202) 501-8541

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1993	1994							
	1993	Sept	Feb	Mar	Apr	May	June	July	Aug	Sept
			1982-84=100							
Consumer Price Index, all items	144.5	145.1	146.7	147.2	147.4	147.5	148.0	148.4	149.0	149.4
Consumer Price Index, less food	145.1	145.1	147.3	148.0	148.1	148.3	148.8	149.1	149.8	150.2
All food	140.9	141.1	142.9	143.2	143.4	143.5	143.5	144.2	144.8	145.0
Food away from home	143.2	143.8	144.6	144.8	145.1	145.3	145.5	145.6	145.8	146.2
Food at home	140.1	140.0	142.6	142.8	143.0	143.0	142.9	144.0	144.7	145.0
Meats 1/	134.6	135.5	136.0	136.4	136.0	136.2	135.4	134.7	135.1	135.0
Beef & veal	137.1	137.0	136.9	136.0	137.1	137.1	136.1	134.4	134.9	135.1
Pork	131.7	134.6	134.1	134.8	133.5	134.4	134.8	134.7	134.7	134.8
Poultry	138.9	138.0	140.4	140.1	140.9	141.8	143.6	144.1	141.7	143.3
Fish	156.6	155.4	160.9	161.8	163.7	161.6	162.6	163.2	163.6	164.9
Eggs	117.1	113.4	117.4	120.5	115.7	107.3	110.8	109.2	115.5	113.9
Dairy products 2/	129.4	129.6	131.8	131.8	131.8	132.0	132.2	131.8	131.8	131.3
Fats & oils 3/	130.0	130.0	131.5	132.6	133.2	133.4	133.5	135.1	134.1	134.2
Fresh fruit	188.8	193.3	194.8	199.1	198.1	204.6	193.3	199.6	201.9	203.9
Processed fruit	132.3	132.4	133.0	133.3	133.9	132.6	132.6	133.8	132.1	132.4
Fresh vegetables	168.4	157.4	168.1	167.0	163.9	162.8	168.7	170.2	163.7	163.5
Potatoes	154.6	156.1	171.3	179.8	186.3	179.9	185.7	194.1	190.4	188.8
Processed vegetables	130.8	130.9	138.1	135.7	136.4	137.2	137.3	138.4	138.5	137.7
Cereals & bakery products	156.6	157.7	161.3	160.4	162.5	162.3	163.4	163.9	164.7	164.8
Sugar & sweets	133.4	133.3	135.6	135.3	135.9	135.5	134.9	135.2	135.1	135.4
Beverages, nonalcoholic	114.6	113.8	116.0	116.0	115.5	115.6	115.8	122.8	131.3	132.1
Apparel										
Apparel, commodities less footwear	131.9	133.0	130.1	134.5	134.7	133.6	131.4	128.1	128.4	132.3
Footwear	125.9	126.2	125.9	127.0	128.0	128.5	127.3	125.0	124.5	125.1
Tobacco & smoking products	228.4	215.1	217.4	217.7	218.0	220.6	220.6	221.3	221.7	220.8
Beverages, alcoholic	149.6	149.9	151.1	151.4	151.6	151.5	151.7	151.6	151.3	151.4

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 501-8541.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr R	May	June	July	Aug
	1982 = 100									
All commodities	116.5	117.2	118.9	118.7	119.7	119.7	119.9	120.4	120.8	121.2
Finished goods 1/	121.7	123.2	124.7	124.2	124.9	125.0	125.3	125.5	126.0	126.6
All foods 2/	122.2	120.9	123.6	123.2	126.1	125.7	125.2	124.2	124.0	125.0
Consumer foods	124.1	123.3	125.7	125.4	127.5	127.1	126.5	125.9	126.2	127.1
Fresh fruit & melons	129.9	84.0	84.2	84.7	87.4	82.0	89.6	80.2	83.5	80.2
Fresh & dried vegetables	103.8	115.0	133.5	117.6	116.6	113.3	117.1	120.5	120.6	111.4
Dried fruit	111.8	114.6	118.2	118.1	120.6	120.9	123.0	123.3	121.6	122.3
Canned fruit & juice	128.6	134.5	126.1	126.8	125.6	126.7	125.9	126.4	126.2	125.8
Frozen fruit & juice	116.3	125.9	110.9	114.0	113.2	113.1	112.2	110.6	110.0	109.9
Fresh veg. excl. potatoes	100.2	116.4	126.4	110.5	96.1	91.4	91.5	94.9	104.8	95.7
Canned veg. & juices	112.9	109.5	110.6	109.6	116.8	116.5	119.7	118.6	119.4	121.4
Frozen vegetables	117.6	116.4	121.0	122.1	126.1	126.4	128.2	127.2	127.0	126.9
Potatoes	125.7	118.4	144.9	143.7	180.3	167.8	147.8	150.8	151.1	154.0
Eggs for fresh use (1991=100)	3/	78.6	86.6	89.0	91.8	81.5	69.2	74.9	73.7	81.6
Bakery products	146.6	152.5	158.6	156.8	158.8	159.2	159.6	160.1	160.3	160.3
Meats	113.5	106.7	110.5	110.2	110.3	109.5	106.6	103.5	101.2	104.8
Beef & veal	112.2	109.5	112.9	110.9	110.5	110.3	106.6	101.2	96.8	102.9
Pork	113.4	98.9	105.4	107.0	108.5	106.4	103.1	101.8	101.6	102.6
Processed poultry	109.9	109.0	111.6	112.8	116.2	117.3	116.9	117.1	116.8	115.2
Fish	149.5	158.1	158.7	145.4	162.7	159.9	158.1	160.1	159.1	160.7
Dairy products	114.6	117.9	118.1	117.9	120.6	121.4	121.1	118.7	117.3	118.6
Processed fruits & vegetables	119.6	120.8	118.3	118.7	121.4	121.7	122.9	122.2	122.2	122.7
Shortening & cooking oil	116.5	115.1	123.0	125.7	140.7	140.0	143.3	141.0	132.8	131.4
Soft drinks	125.5	125.6	126.3	125.9	127.2	127.1	126.9	126.8	126.7	126.0
Consumer finished goods less foods	119.7	120.8	121.7	120.9	120.4	120.7	121.3	121.9	122.5	123.3
Beverages, alcoholic	123.7	126.1	126.0	125.8	125.5	124.2	125.3	124.2	124.2	124.1
Apparel	119.6	122.2	123.2	123.3	123.6	123.3	123.6	123.3	123.4	123.6
Footwear	128.6	132.0	134.4	134.8	135.4	135.2	135.7	135.2	135.3	135.2
Tobacco products	249.7	276.3	280.1	213.3	224.7	224.7	224.7	224.9	224.7	223.1
Intermediate materials 4/	114.4	114.7	116.2	116.6	116.8	116.9	117.3	118.0	118.5	119.4
Materials for food manufacturing	115.3	113.9	115.6	116.1	119.9	120.7	120.3	118.1	116.4	117.9
Flour	96.8	109.5	109.3	109.2	111.0	110.2	111.0	108.4	101.8	102.5
Refined sugar 5/	121.6	119.8	118.3	118.4	118.0	117.9	118.4	118.5	118.9	118.9
Crude vegetable oils	103.0	97.1	110.3	114.4	140.0	137.2	138.5	136.6	123.5	122.1
Crude materials 6/	101.2	100.4	102.4	100.6	104.1	104.1	103.3	103.6	102.1	101.4
Foodstuffs & feedstuffs	105.5	105.1	108.4	108.0	114.2	113.1	110.0	107.7	104.0	101.7
Fruits & vegetables & nuts 7/	114.7	96.9	106.0	99.7	100.0	96.6	101.0	98.8	100.1	95.1
Grains	92.0	97.3	94.4	93.9	112.5	109.3	108.6	110.1	96.4	90.2
Livestock	107.9	104.7	107.0	107.1	104.7	104.9	98.5	92.4	94.3	96.8
Poultry, live	111.2	112.6	122.0	125.9	129.5	126.8	138.2	135.2	131.0	119.9
Fibers, plant & animal	115.1	89.8	91.3	88.5	120.8	123.4	129.2	129.4	114.5	118.7
Fluid milk	89.5	96.1	93.8	92.6	99.3	99.7	97.6	94.0	93.6	91.5
Oilseeds	106.4	107.5	115.9	123.8	129.4	125.3	125.5	129.9	117.2	107.7
Tobacco, leaf	101.1	101.0	99.6	93.1	91.8	98.9	98.9	—	98.9	91.1
Sugar, raw cane	113.7	112.1	113.2	115.9	114.9	115.4	115.6	116.9	117.3	115.0

1/ Commodities ready for sale to ultimate consumer. 2/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). 3/ New Index beginning Dec. 1991. 4/ Commodities requiring further processing to become finished goods. 5/ All types & sizes of refined sugar. 6/ Products entering market for the first time that have not been manufactured at that point. 7/ Fresh & dried. R = revised.

Information contact: Ann Duncan (202) 501-8541.

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr	May	June	July	Aug
Market basket 1/										
Retail cost (1982-84=100)	137.4	138.4	141.9	141.8	144.6	144.8	144.9	144.9	145.3	145.2
Farm value (1982-84=100)	106.1	103.4	104.9	103.9	108.1	103.1	103.0	100.0	97.7	98.8
Farm-retail spread (1982-84=100)	154.2	157.3	181.9	182.2	185.3	187.3	187.5	189.1	171.0	170.1
Farm value-retail cost (%)	27.0	26.2	25.9	25.7	25.7	24.9	24.9	24.2	23.6	23.8
Meat products										
Retail cost (1982-84=100)	132.5	130.7	134.6	135.6	136.4	136.0	136.2	135.4	134.7	135.1
Farm value (1982-84=100)	110.0	104.5	107.2	103.7	103.1	102.1	99.3	93.0	90.3	94.1
Farm-retail spread (1982-84=100)	155.6	157.5	182.8	168.3	170.5	170.8	174.0	178.9	180.3	177.1
Farm value-retail cost (%)	42.0	40.5	40.3	38.7	38.3	38.0	36.9	34.8	33.9	35.3
Dairy products										
Retail cost (1982-84=100)	125.1	128.5	129.4	130.5	131.8	131.8	132.0	132.2	131.8	131.8
Farm value (1982-84=100)	90.0	95.9	93.0	93.5	96.6	98.2	98.7	96.0	89.9	89.0
Farm-retail spread (1982-84=100)	157.5	158.6	182.9	164.6	164.2	164.6	164.5	165.6	170.5	171.3
Farm value-retail cost (%)	34.5	35.8	34.5	34.4	35.2	35.0	35.2	34.8	32.7	32.4
Poultry										
Retail cost (1982-84=100)	131.5	131.4	136.9	137.5	140.1	140.9	141.8	143.6	144.1	141.7
Farm value (1982-84=100)	102.5	104.0	111.5	117.5	114.3	114.6	119.7	121.5	120.0	115.3
Farm-retail spread (1982-84=100)	164.9	163.0	166.2	160.5	169.8	171.2	167.3	169.0	171.9	172.1
Farm value-retail cost (%)	41.7	42.4	43.6	45.7	43.7	43.5	45.2	45.3	44.6	43.6
Eggs										
Retail cost (1982-84=100)	121.2	108.3	117.1	117.4	120.5	116.7	107.3	110.8	109.2	115.5
Farm value (1982-84=100)	100.9	77.8	88.9	88.0	95.4	85.2	78.0	77.0	74.6	80.6
Farm-retail spread (1982-84=100)	157.6	163.2	167.8	170.2	165.6	170.4	159.9	171.5	171.4	178.2
Farm value-retail cost (%)	53.5	46.1	48.8	48.2	50.9	47.3	46.7	44.6	43.9	44.8
Cereal & bakery products										
Retail cost (1982-84=100)	145.8	151.5	156.6	157.5	160.4	162.5	162.3	163.4	163.9	164.9
Farm value (1982-84=100)	85.3	94.7	91.4	88.0	110.8	107.9	105.1	100.9	93.0	94.7
Farm-retail spread (1982-84=100)	154.3	159.4	185.6	167.2	167.3	170.1	170.3	172.1	173.8	174.7
Farm value-retail cost (%)	7.2	7.7	7.1	6.8	8.5	8.1	7.9	7.6	6.9	7.0
Fresh fruits										
Retail cost (1982-84=100)	200.1	189.6	195.8	192.1	204.5	205.0	212.5	200.6	207.4	208.6
Farm value (1982-84=100)	174.4	122.5	134.8	139.5	114.3	113.1	124.9	103.3	114.7	119.8
Farm-retail spread (1982-84=100)	211.9	220.6	224.0	216.4	246.1	247.4	252.9	245.5	250.2	249.6
Farm value-retail cost (%)	27.5	20.4	21.7	22.9	17.7	17.4	18.6	18.3	17.5	18.1
Fresh vegetables										
Retail cost (1982-84=100)	154.4	157.9	168.4	156.1	167.0	163.8	162.8	168.7	170.2	163.7
Farm value (1982-84=100)	110.8	120.5	128.4	117.0	132.2	102.5	104.2	112.3	117.0	114.9
Farm-retail spread (1982-84=100)	176.8	177.2	189.0	176.2	184.9	195.3	192.9	197.7	197.5	188.8
Farm value-retail cost (%)	24.4	25.9	25.9	25.5	28.9	21.3	21.7	22.6	23.3	23.8
Processed fruits & vegetables										
Retail cost (1982-84=100)	130.2	133.7	131.5	131.7	134.2	134.8	134.4	134.5	135.7	134.7
Farm value (1982-84=100)	120.6	129.0	106.3	105.8	114.6	113.6	114.0	113.5	116.2	115.1
Farm-retail spread (1982-84=100)	133.2	135.2	139.4	139.8	140.3	141.4	140.8	141.1	141.8	140.8
Farm value-retail cost (%)	22.0	22.9	19.2	19.1	20.3	20.0	20.2	20.1	20.4	20.3
Fats & oils										
Retail cost (1982-84=100)	131.7	129.8	130.0	130.1	132.6	133.2	133.4	133.5	135.1	134.1
Farm value (1982-84=100)	98.0	93.2	107.5	107.8	129.5	123.5	129.0	126.2	114.2	112.5
Farm-retail spread (1982-84=100)	144.2	143.3	138.3	138.3	133.8	136.8	135.0	136.2	142.8	142.1
Farm value-retail cost (%)	20.0	19.3	22.2	22.3	28.3	24.9	26.0	25.4	22.7	22.6
	Annual			1993	1994					
	1991	1992	1993	Sept	Apr	May	June	July	Aug	Sept
Beef, Choice										
Retail price 2/ (cts./lb.)	288.3	284.6	293.4	288.4	287.1	288.1	283.3	280.1	278.4	280.0
Wholesale value 3/ (cts.)	182.5	179.6	182.5	175.3	176.8	167.6	158.5	160.4	166.6	162.0
Net farm value 4/ (cts.)	160.2	161.8	164.1	158.2	160.8	145.8	133.9	137.2	140.8	136.8
Farm-retail spread (cts.)	128.1	122.8	129.3	132.2	126.3	142.3	149.4	142.9	137.6	143.2
Wholesale-retail 5/ (cts.)	105.8	105.0	110.9	112.1	110.3	120.5	124.8	119.7	111.6	118.0
Farm-wholesale 6/ (cts.)	22.3	17.8	18.4	20.1	16.0	21.8	24.6	23.2	25.8	25.2
Farm value-retail price (%)	56	57	56	54	56	51	47	49	51	49
Pork										
Retail price 2/ (cts./lb.)	211.9	198.0	197.6	201.6	198.7	198.8	199.0	200.5	199.1	197.3
Wholesale value 3/ (cts.)	108.9	98.9	102.8	105.5	103.3	102.2	99.1	99.9	100.5	95.5
Net farm value 4/ (cts.)	78.4	67.8	72.5	77.0	67.6	67.4	67.8	67.5	66.6	55.9
Farm-retail spread (cts.)	133.5	130.2	125.1	124.6	131.1	131.4	131.2	133.0	132.5	141.4
Wholesale-retail 5/ (cts.)	103.0	99.1	94.8	96.1	95.4	96.6	99.9	100.6	98.6	101.8
Farm-wholesale 6/ (cts.)	30.5	31.1	30.3	28.5	35.7	34.8	31.3	32.4	33.9	39.6
Farm value-retail price (%)	37	34	37	38	34	34	34	34	33	28

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, & in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denis Dunham (202) 219-0867, Larry Duerer (202) 219-1269.

Table 9.—Price Indexes of Food Marketing Costs

	Annual			1993			1994		
	1991	1992	1993	II	III	IV	I	II	III P
	1967=100*								
Labor—hourly earnings & benefits	409.7	418.8	431.9	432.6	432.2	436.7	438.4	440.4	439.4
Processing	420.4	438.7	448.9	450.1	450.1	452.1	455.5	458.7	458.0
Wholesaling	443.8	458.8	475.2	475.7	478.1	479.3	484.1	486.7	487.8
Retailing	383.9	383.4	395.7	396.1	395.0	400.2	401.2	401.7	399.3
Packaging & containers	371.2	370.1	371.1	369.3	368.4	378.1	377.1	378.8	385.5
Paperboard boxes & containers	320.3	324.8	322.9	323.5	322.4	321.4	324.4	328.2	339.8
Metal cans	470.5	478.1	487.7	478.2	477.7	518.9	520.3	518.8	518.8
Paper bags & related products	410.9	387.8	387.3	390.8	385.1	381.0	379.7	385.8	395.9
Plastic films & bottles	310.7	309.9	307.9	305.2	304.9	310.3	308.3	306.0	310.2
Glass containers	446.0	444.4	446.8	444.8	450.3	449.1	449.0	452.3	454.5
Metal foil	251.6	241.0	238.8	238.5	238.5	238.9	236.1	235.1	240.5
Transportation services	422.6	426.1	425.9	426.0	426.2	428.0	430.0	434.4	438.6
Advertising	490.1	484.0	507.8	505.8	510.1	514.4	524.8	527.8	531.7
Fuel & power	655.7	654.8	671.7	678.2	678.9	672.3	657.1	654.6	671.0
Electric	508.3	514.0	522.3	520.9	549.4	513.0	508.5	515.0	540.5
Petroleum	649.8	639.9	638.9	664.0	609.5	636.3	585.4	581.1	608.6
Natural gas	1,085.0	1,061.1	1,132.9	1,119.5	1,139.0	1,164.7	1,185.7	1,157.8	1,131.9
Communications, water & sewage	261.7	266.9	270.0	268.4	270.3	272.2	275.0	276.6	277.9
Rent	282.7	278.3	273.1	274.6	272.3	271.5	272.6	273.9	273.9
Maintenance & repair	442.7	454.8	485.2	466.2	467.4	464.5	467.3	472.0	474.3
Business services	425.4	441.9	459.9	457.9	463.1	466.7	468.9	474.1	475.5
Supplies	319.3	318.1	321.3	321.9	321.6	322.1	319.9	322.9	326.8
Property taxes & insurance	480.5	496.7	512.9	510.9	514.8	518.4	522.8	526.7	532.0
Interest, short-term	114.5	74.4	64.7	63.7	64.8	65.9	71.7	92.5	102.0
Total marketing cost index	409.3	415.8	425.2	425.3	425.6	428.5	430.7	433.2	435.7

* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denis Dunham (202) 219-0867.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Produc- tion 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
				Million pounds 4/			Pounds		
Beef									
1992	419	23,088	2,440	25,945	1,324	360	24,261	66.5	75.36
1993	360	23,049	2,401	25,810	1,275	529	24,008	65.1	76.36
1994 F	529	24,220	2,400	27,149	1,510	525	25,114	67.4	68.94
1995 F	525	24,582	2,485	27,592	1,590	450	25,552	67.9	65-71
Pork									
1992	388	17,234	645	18,267	407	385	17,475	53.1	43.03
1993	385	17,068	740	18,213	435	359	17,419	52.3	48.10
1994 F	359	17,480	795	18,634	450	385	17,799	52.9	41.03
1995 F	385	18,408	775	19,568	480	375	18,713	55.1	37-40
Veal 5/									
1992	7	310	0	317	0	5	312	1.0	89.38
1993	5	285	0	290	0	4	286	0.9	95.92
1994 F	4	294	0	298	0	5	293	0.9	88.53
1995 F	5	290	0	295	0	5	290	0.9	82-86
Lamb & mutton									
1992	8	348	50	404	8	6	388	1.4	61.00
1993	8	337	53	398	8	8	381	1.3	65.85
1994 F	8	323	53	384	9	9	366	1.2	66.09
1995 F	9	308	60	377	8	9	360	1.2	60-66
Total red meat									
1992	820	40,978	3,135	44,933	1,739	758	42,436	121.9	—
1993	758	40,759	3,194	44,711	1,718	900	42,092	119.6	—
1994 F	900	42,317	3,248	46,465	1,969	924	43,572	122.5	—
1995 F	864	43,588	3,320	47,832	2,078	839	44,915	125.2	—
Broilers									
1992	300	20,904	0	21,204	1,469	368	19,347	66.8	52.8
1993	368	22,015	0	22,383	1,966	358	20,059	68.3	55.2
1994 F	358	23,519	0	23,877	2,690	420	20,766	70.0	56.3
1995 F	420	24,544	0	24,964	2,790	390	21,784	72.7	52-56
Mature chicken									
1992	10	520	0	530	41	10	479	1.9	—
1993	10	515	0	525	56	8	481	1.6	—
1994 F	8	512	0	519	80	10	429	1.6	—
1995 F	10	522	0	532	82	6	444	1.7	—
Turkeys									
1992	264	4,777	0	5,041	171	272	4,599	16.0	60.2
1993	272	4,798	0	5,069	212	249	4,608	17.8	62.6
1994 F	249	4,958	0	5,207	280	245	4,682	17.9	65.0
1995 F	245	5,081	0	5,326	305	265	4,756	18.1	59-63
Total poultry									
1992	575	26,201	0	26,775	1,701	650	24,425	86.4	—
1993	650	27,328	0	27,977	2,234	615	25,128	87.9	—
1994 F	615	28,988	0	29,603	3,050	675	25,878	89.6	—
1995 F	675	30,147	0	30,822	3,177	661	26,984	92.4	—
Red meat & poultry									
1992	1,395	67,179	3,135	71,708	3,440	1,408	66,861	208.4	—
1993	1,408	68,067	3,194	72,688	3,953	1,515	67,221	207.6	—
1994 F	1,515	71,305	3,248	76,068	5,019	1,599	69,450	212.1	—
1995 F	1,599	73,735	3,320	78,654	5,255	1,500	71,899	217.6	—

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was 70.5). 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Medium # 1, Nebraska Direct 1,100-1,300 lb.; pork: barrows & gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning in 1989, veal trade is no longer reported separately. F = forecast. — = not available.

Information contacts: Polly Cochran or Maxine Davis (202) 219-0998.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Hatch- ing use	Ending stocks	Consumption		Wholesale price*
								Total	Per capita	
									No.	
Million dozen										
										Cts./doz.
1988	14.4	5,784.2	5.3	5,803.9	141.8	605.9	15.2	5,041.0	246.9	62.1
1989	15.2	5,598.2	25.2	5,638.5	91.6	643.9	10.7	4,892.4	237.3	81.9
1990	10.7	5,665.6	9.1	5,685.3	100.8	678.5	11.6	4,894.4	235.0	82.2
1991	11.6	5,779.3	2.3	5,793.3	154.5	708.6	13.0	4,917.2	233.5	77.5
1992	13.0	5,884.8	4.3	5,902.1	157.0	732.0	13.5	4,999.6	234.8	65.4
1993	13.5	5,960.2	4.7	5,978.3	158.9	769.3	10.7	5,039.4	234.2	72.5
1994 P	10.7	6,115.8	4.2	6,130.7	185.7	804.7	13.0	5,127.3	235.9	68-69
1995 F	13.0	6,165.0	4.3	6,182.3	170.0	835.0	12.0	5,165.3	235.3	64-69

* Cartoned grade A large eggs, New York. F = forecast. P = preliminary.

Information contact: Maxine Davis (202) 501-8777.

Table 12.—U.S. Milk Supply & Use^{1/}

	Production	Farm use	Commercial		Imports	Total commercial supply	CCC net removals	Commercial		All milk price 1/	CCC net removals	
			Farm marketings	Beg. stock				Ending stocks	Disappearance		Skim solids basis	Total solids basis 2/
Billion pounds (milkfat basis)										\$/cwt	Billion pounds	
1988	143.1	2.4	140.7	4.5	2.7	147.9	10.8	4.1	133.0	12.61	14.3	12.9
1987	142.7	2.3	140.5	4.1	2.5	147.1	8.8	4.0	135.7	12.54	9.3	8.3
1986	145.2	2.2	142.9	4.6	2.4	149.9	9.1	4.3	138.5	12.26	5.5	6.9
1989	144.2	2.1	142.2	4.3	2.5	149.0	9.4	4.1	135.4	13.58	0.4	4.0
1990	148.3	2.0	146.3	4.1	2.7	153.1	9.0	6.1	138.9	13.68	1.6	4.8
1991	148.5	2.0	146.5	5.1	2.6	154.3	10.4	4.5	139.4	12.24	3.9	6.5
1992	151.6	1.9	149.7	4.6	2.5	156.7	10.0	4.7	142.1	13.09	2.0	5.4
1993	151.0	1.9	149.0	4.7	2.8	156.5	6.7	4.6	145.2	12.86	4.2	5.2
1994 F	153.4	1.9	151.5	4.8	2.9	159.0	4.1	4.3	150.6	13.15	4.0	4.0

1/ Delivered to plants & dealers; does not reflect deductions. 2/ Arbitrarily weighted average of milkfat basis (40 percent) & skim solids basis (60 percent). F = forecast.

Information contact: Jim Miller (202) 219-0770.

Table 13.—Poultry & Eggs

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr	May	June	July	Aug
Broilers										
Federally inspected slaughter, certified (mil. lb.)	19,727.7	21,052.4	22,178.1	1,905.3	2,029.1	1,923.2	1,989.7	2,073.1	1,882.0	2,210.0
Wholesale price, 12-city (cts./lb.)	52.0	52.6	55.2	57.8	57.5	57.8	61.4	60.7	57.3	54.7
Price of grower feed (\$/ton)	208	208	209	202	221	221	225	222	211	213
Broiler-feed price ratio 1/	3.0	3.1	3.3	3.6	3.2	3.2	3.3	3.4	3.6	3.3
Stocks beginning of period (mil. lb.)	241.6	300.4	367.9	372.8	405.9	373.2	403.8	414.6	400.0	405.3
Broiler-type chicks hatched (mil.) 2/	6,616.5	6,892.8	7,218.3	612.2	643.0	629.2	661.0	646.0	650.1	658.1
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	4,651.9	4,828.9	4,847.7	426.9	400.9	380.6	415.6	457.9	405.6	483.6
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	61.3	60.2	62.6	63.4	61.0	61.6	63.1	64.0	65.3	66.4
Price of turkey grower feed (\$/ton)	231	242	248	248	258	261	255	258	258	261
Turkey-feed price ratio 1/	3.3	3.1	3.1	3.2	3.0	3.0	3.1	3.1	3.2	3.2
Stocks beginning of period (mil. lb.)	306.4	284.1	271.7	625.3	304.8	346.5	399.1	463.7	545.3	598.2
Pouls placed in U.S. (mil.)	308.1	307.8	308.9	28.0	28.4	28.1	29.5	28.6	28.2	26.4
Eggs										
Farm production (mil.)	69,352	70,618	71,622	6,015	6,279	6,035	6,158	5,962	6,188	6,262
Average number of layers (mil.)	275	278	283	282	289	289	289	287	287	290
Rate of lay (eggs per layer on farms)	252.4	253.9	252.6	21.3	21.7	20.9	21.4	20.8	21.5	21.6
Cartoned price, New York, grade A large (cts./doz.) 3/	77.5	65.4	72.5	72.8	74.4	65.0	61.9	62.9	66.2	68.0
Price of laying feed (\$/ton)	192	199	202	200	220	216	216	216	204	207
Egg-feed price ratio 1/	6.8	5.7	6.2	6.1	6.0	5.7	5.4	5.4	5.6	5.8
Stocks, first of month										
Shell (mil. doz.)	0.45	0.63	0.46	0.18	0.24	0.27	0.24	0.24	0.24	0.42
Frozen (mil. doz.)	11.2	12.3	13.0	13.4	12.0	11.9	12.4	11.5	11.7	14.4
Replacement chicks hatched (mil.)	420	388	406	31.5	33.3	35.7	35.2	31.9	30.3	31.5

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 501-8777.

Table 14.—Dairy

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr	May	June	July	Aug
Milk prices, Minnesota—Wisconsin, 3.5% fat (\$/cwt) 1/	11.05	11.88	11.80	11.17	12.77	12.99	11.51	11.25	11.41	11.73
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	99.3	82.5	74.4	74.8	85.5	85.5	84.5	85.1	86.9	71.5
Am. cheese, Wis. assembly pt. (cts./lb.)	124.4	131.9	131.5	124.8	140.0	143.3	125.7	120.2	129.1	132.2
Nonfat dry milk (cts./lb.) 2/	94.0	107.1	112.0	109.3	110.5	110.8	108.5	106.1	105.6	108.5
USDA net removals 3/										
Total milk equiv. (mil. lb.) 4/	10,426.0	9,936.4	9,653.8	-108.0	282.3	360.9	1,039.0	455.4	97.7	-182.1
Butter (mil. lb.)	442.9	439.5	288.8	-5.9	11.4	15.5	48.7	19.7	3.2	-9.8
Am. cheese (mil. lb.)	78.9	14.4	8.3	0.4	0.1	0.1	0.1	0.2	0.2	0.2
Nonfat dry milk (mil. lb.)	269.5	136.7	304.3	20.8	14.3	37.7	18.3	27.1	29.0	28.4
Milk										
Milk prod. 21 States (mil. lb.)	125,671	128,223	127,383	10,573	11,079	11,038	11,452	10,998	10,998	10,830
Milk per cow (lb.)	14,977	15,544	15,680	1,306	1,384	1,377	1,428	1,368	1,369	1,348
Number of milk cows (1,000)	8,391	8,249	8,124	8,098	8,005	8,014	8,021	8,038	8,030	8,034
U.S. milk production (mil. lb.)	148,477	151,847	150,954	6/ 12,492	6/ 13,249	6/ 13,175	6/ 13,870	6/ 13,128	6/ 13,074	6/ 12,877
Stocks, beginning										
Total (mil. lb.)	13,359	15,841	14,215	17,251	9,894	10,081	10,581	11,258	11,180	10,387
Commercial (mil. lb.)	5,148	4,481	4,888	5,423	4,778	4,776	5,179	5,502	5,413	5,255
Government (mil. lb.)	8,213	11,379	9,528	11,828	5,118	5,305	5,401	5,756	5,766	5,133
Imports, total (mil. lb.)	2,625	2,524	2,807	190	259	255	191	275	227	255
Commercial disappearance (mil. lb.)	139,343	142,081	145,348	12,775	13,085	12,510	12,338	12,833	13,228	—
Butter										
Production (mil. lb.)	1,335.8	1,385.2	1,315.2	80.7	117.8	119.3	118.8	102.4	88.2	88.7
Stocks, beginning (mil. lb.)	416.1	539.4	447.7	516.4	243.2	253.5	265.7	281.4	275.1	245.9
Commercial disappearance (mil. lb.)	903.6	944.2	1,040.6	88.0	107.7	92.8	72.2	89.9	85.7	—
American cheese										
Production (mil. lb.)	2,768.9	2,936.6	2,957.3	235.0	249.8	254.3	264.0	266.9	254.0	241.8
Stocks, beginning (mil. lb.)	347.4	318.7	348.7	408.9	361.7	350.5	357.4	383.5	386.9	375.4
Commercial disappearance (mil. lb.)	2,768.7	2,902.7	2,945.5	247.2	282.8	248.1	238.4	266.0	267.6	—
Other cheese										
Production (mil. lb.)	3,285.9	3,551.7	3,570.9	290.7	335.0	299.0	323.5	296.5	295.8	311.0
Stocks, beginning (mil. lb.)	110.6	97.5	120.9	126.0	113.8	123.2	130.8	133.1	134.6	131.1
Commercial disappearance (mil. lb.)	3,575.2	3,795.4	3,884.3	314.3	353.7	320.6	343.3	318.7	327.8	—
Nonfat dry milk										
Production (mil. lb.)	877.5	872.1	948.1	65.6	102.5	123.2	132.3	115.8	97.8	88.5
Stocks, beginning (mil. lb.)	181.9	214.8	81.2	130.4	80.9	87.4	89.8	124.9	149.0	159.8
Commercial disappearance (mil. lb.)	662.7	720.5	642.3	42.2	100.1	82.8	76.7	68.6	67.9	—
Frozen dessert										
Production (mil. gal.) 5/	1,203.1	1,195.8	1,198.3	118.5	111.2	110.6	112.6	123.6	120.5	118.8
	Annual			1993				1994		
	1991	1992	1993	I	II	III	IV	I	II	III
Milk production (mil. lb.)	148,477	151,847	150,954	37,608	39,411	37,364	38,571	37,692	39,973	38,378
Milk per cow (lb.)	14,800	15,419	15,554	3,848	4,052	3,862	3,792	3,921	4,146	3,975
No. of milk cows (1,000)	9,992	9,835	9,705	9,773	9,727	9,675	9,644	9,612	9,641	9,656
Milk-feed price ratio	1.68	1.89	1.84	1.81	1.67	1.62	1.66	1.65	1.80	1.57
Returns over concentrate costs (\$/cwt milk)	8.95	9.95	9.54	9.05	9.55	9.35	9.95	10.10	9.60	9.15

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Includes products exported through the Dairy Export Incentive Program (DEIP). 4/ Milk equivalent, fat basis. 5/ Hard ice cream, ice milk, & hard sherbet. 6/ Estimated. — = not available.

Information contact: LaVerne T. Williams (202) 219-1268.

Table 15.—Wool

	Annual			1993				1994		
	1991	1992	1993	I	II	III	IV	I	II	III
U.S. wool price, (cts./lb.) 1/	199	204	137	146	134	136	132	153	219	238
Imported wool price, (cts./lb.) 2/	187	210	142	150	137	128	150	171	192	200
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	137,187	136,143	139,941	35,549	35,910	35,502	34,419	36,452	35,639	—
Carpet wool (1,000 lb.)	14,352	14,695	15,665	4,513	4,343	2,850	3,925	4,380	3,414	—

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. — = not available.

Information contact: John Lawler (202) 501-8525.

Table 16.—Meat Animals

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr	May	June	July	Aug
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	8,992	8,397	9,073	7,633	8,911	8,867	8,581	8,215	7,549	7,370
Placed on feed (1,000 head)	19,704	20,498	20,393	1,865	1,626	1,406	1,425	1,200	1,528	1,794
Marketings (1,000 head)	19,071	18,623	18,988	1,687	1,583	1,610	1,668	1,765	1,652	1,732
Other disappearance (1,000 head)	1,233	1,199	1,199	77	88	82	92	101	55	56
Market prices (\$/cwt)										
Slaughter Cattle										
Choice steers, 1,100–1,300 lb.										
Texas	74.21	75.35	76.36	74.58	74.85	75.16	68.09	63.13	64.86	66.42
Neb. Direct	74.68	75.71	77.02	75.09	75.41	75.48	67.00	63.80	66.58	68.04
Boning utility cows, Sioux Falls	50.66	44.64	47.52	49.61	48.72	47.31	48.67	44.50	44.00	43.74
Feeder steers										
Medium no. 1, Oklahoma City										
600–650 lb.	---	86.47	91.72	92.52	91.41	89.44	85.15	81.47	82.34	82.95
750–800 lb.	---	81.76	86.45	88.50	81.31	81.19	76.08	75.63	78.00	77.45
Slaughter hogs										
Barrows & gilts, 230–250 lb.										
Iowa, S. Minn.	49.69	43.03	48.10	48.63	44.58	42.83	42.87	43.01	42.93	42.72
6 markets	48.88	42.31	45.38	48.21	43.97	42.48	42.24	42.60	42.42	42.33
Feeder pigs										
S. Mo., 40–50 lb. (per head)	44.52	31.71	40.66	36.13	47.33	42.80	35.72	28.74	26.83	29.73
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	53.21	61.00	65.85	58.97	61.83	51.25	60.94	68.92	75.33	79.50
Ewes, Good, San Angelo	31.98	35.24	37.46	35.39	39.70	39.45	39.00	43.00	39.50	39.00
Feeder lambs										
Choice, San Angelo	53.29	62.21	69.32	63.17	68.20	61.95	64.70	65.82	70.75	70.08
Wholesale meat prices, Midwest										
Boxed beef cut-out value										
Choice, 700–850 lb.	117.24	118.02	117.71	115.27	113.63	113.99	107.79	102.10	103.78	106.04
Select, 700–850 lb.	112.73	111.66	113.53	111.64	111.21	111.98	103.44	97.49	98.63	99.83
Canner & cutter cow beef	96.42	93.85	95.43	96.50	93.89	91.52	90.51	84.26	85.90	82.31
Pork cutout, No. 2	67.02	58.37	62.19	65.56	60.96	59.81	58.45	57.53	57.74	56.33
Pork loins, 14–18 lb.	108.39	101.41	107.47	118.73	100.46	101.89	103.99	103.84	109.79	112.88
Pork bellies, 12–14 lb.	47.79	30.39	41.62	46.66	49.88	48.84	41.40	40.39	38.64	39.60
Hams, skinned, 20–26 lb.	73.55	66.67	66.90	69.01	64.27	57.76	54.44	55.91	54.56	54.92
All fresh beef retail price	271.05	266.79	273.43	273.89	271.80	267.25	267.60	263.42	263.92	264.75
Commercial slaughter (1,000 head) 2/										
Cattle	32,689	32,874	33,324	2,942	2,860	2,712	2,835	3,039	2,821	3,060
Steers	16,728	17,138	17,222	1,585	1,436	1,448	1,577	1,705	1,586	1,685
Heifers	9,725	9,236	9,358	820	830	752	780	845	775	821
Cows	5,623	5,846	6,086	495	537	458	443	434	410	490
Bulls & stags	614	653	659	82	67	84	56	55	50	64
Calves	1,436	1,371	1,195	98	114	94	93	101	95	108
Sheep & lambs	5,721	5,496	5,182	433	530	419	435	392	318	400
Hogs	88,169	94,889	93,066	7,652	8,330	7,782	7,561	7,628	7,099	8,190
Barrows & gilts	83,668	89,964	88,387	7,231	7,907	7,416	7,193	7,202	6,669	7,744
Commercial production (mil. lb.)										
Beef	22,800	22,968	22,942	2,065	2,001	1,902	1,985	2,157	2,027	2,215
Veal	296	299	267	23	26	22	22	24	21	24
Lamb & mutton	358	343	329	27	34	27	28	24	19	24
Pork	16,948	17,184	17,030	1,389	1,530	1,432	1,397	1,411	1,294	1,493

	Annual			1993			1994			
	1991	1992	1993	II	III	IV	I	II	III	IV
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	10,827	10,135	10,884	10,452	9,473	9,851	11,106	10,824	9,019	---
Placed on feed (1,000 head)	23,208	24,241	24,022	5,314	6,341	7,048	5,347	4,670	---	---
Marketings (1,000 head)	22,383	22,056	22,316	5,833	5,893	6,278	5,564	5,946	---	---
Other disappearance (1,000 head)	1,517	1,438	1,484	460	270	315	275	329	---	---
Hogs & pigs (10 States) 3/										
Inventory (1,000 head) 1/	42,900	45,735	46,240	45,080	48,420	46,920	46,180	45,830	47,965	49,150
Breeding (1,000 head) 1/	5,257	5,610	5,515	5,470	5,630	5,610	5,595	5,595	5,815	5,820
Market (1,000 head) 1/	37,643	40,125	40,725	39,610	40,790	41,310	40,585	40,235	42,150	43,330
Farrowings (1,000 head)	8,516	9,695	9,292	2,521	2,332	2,361	2,288	2,588	2,438	*2,485
Pig crop (1,000 head)	75,330	78,520	75,355	20,465	18,649	19,007	18,522	21,454	20,073	---

1/ Beginning of period. 2/ Classes estimated. 3/ Quarters are Dec. of preceding year–Feb. (I), Mar.–May (II), June–Aug. (III), Sept.–Nov. (IV). *Intentions.

Information contact: Polly Cochran (202) 219-0787.

Crops & Products

Table 17.—Supply & Utilization^{1,2}

	Area				Production	Total supply ^{4/}	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price ^{5/}
	Set aside ^{3/}	Planted	Harvested	Yield								
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
Wheat												
1989/90	9.6	76.6	62.2	32.7	2,037	2,781	139	853	1,232	2,224	536	3.72
1990/91	7.5	77.2	69.3	39.5	2,736	3,309	491	882	1,069	2,443	866	2.81
1991/92	15.9	69.9	57.7	34.3	1,981	2,888	248	887	1,282	2,416	472	3.00
1992/93*	7.3	72.3	62.4	39.4	2,459	3,001	186	933	1,354	2,472	529	3.24
1993/94*	5.7	72.2	62.7	38.3	2,403	3,041	276	965	1,228	2,470	570	3.26
1994/95*	4.7	70.5	61.7	37.6	2,320	2,970	225	982	1,250	2,457	513	3.25-3.65
Rice												
	Mil. acres			Lb./acre				Mil. cwt (rough equiv.)				\$/cwt
1989/90	1.2	2.73	2.69	5,749	184.6	185.6	—	6/ 82.0	77.2	159.2	26.4	7.35
1990/91	1.0	2.90	2.82	5,529	156.1	187.2	—	6/ 91.8	70.9	162.7	24.6	6.68
1991/92	0.9	2.88	2.78	5,674	157.5	187.3	—	6/ 93.5	66.4	159.9	27.4	7.58
1992/93*	0.4	3.18	3.13	5,730	179.7	213.2	—	6/ 96.7	77.0	173.7	39.4	5.89
1993/94*	0.7	2.92	2.83	5,510	156.1	202.5	—	6/ 97.1	79.4	176.4	26.0	8.08
1994/95*	0.2	3.36	3.25	5,926	192.3	226.3	—	6/ 102.0	81.0	183.0	43.3	5.25-8.75
Corn												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1989/90	10.8	72.2	64.7	116.3	7,525	9,458	4,389	1,358	2,368	8,113	1,344	2.36
1990/91	10.7	74.2	67.0	118.5	7,934	9,282	4,663	1,373	1,725	7,761	1,521	2.28
1991/92	7.4	78.0	68.8	108.6	7,475	9,016	4,878	1,454	1,584	7,016	1,100	2.37
1992/93*	5.3	79.3	72.2	131.4	9,482	10,589	5,301	1,512	1,663	8,476	2,113	2.07
1993/94*	10.9	73.3	63.0	100.7	8,344	8,478	4,715	1,588	1,325	7,628	850	2.50
1994/95*	2.2	78.6	71.8	133.8	9,602	10,457	5,350	1,660	1,625	8,635	1,822	1.90-2.30
Sorghum												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1989/90	3.3	12.6	11.1	65.4	915	1,055	517	15	303	835	220	2.10
1990/91	3.3	10.5	9.1	63.1	673	793	410	9	232	651	143	2.12
1991/92	2.5	11.1	9.9	69.3	685	727	374	8	292	674	53	2.25
1992/93*	2.0	13.3	12.2	72.8	884	937	478	8	277	782	175	1.89
1993/94*	2.3	10.5	9.6	59.9	588	743	488	8	200	695	48	2.31
1994/95*	1.5	10.2	9.3	68.9	640	688	400	8	215	623	65	1.70-2.10
Barley												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1989/90	2.3	9.1	8.3	48.6	404	614	193	175	84	453	161	2.42
1990/91	2.9	8.2	7.5	68.1	422	596	205	176	81	481	135	2.14
1991/92	2.2	8.9	8.4	55.2	484	624	225	176	94	496	129	2.10
1992/93*	2.3	7.8	7.3	62.5	458	598	195	172	80	447	161	2.04
1993/94*	2.6	7.8	6.8	58.9	400	623	243	175	66	484	139	1.99
1994/95*	2.4	7.2	6.7	56.2	375	579	215	175	60	450	129	1.85-2.15
Oats												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1989/90	0.4	12.1	6.9	54.3	374	538	266	115	1	361	157	1.49
1990/91	0.2	10.4	5.9	60.1	358	578	286	120	1	407	171	1.14
1991/92	0.6	8.7	4.8	50.7	243	489	235	125	2	362	128	1.21
1992/93*	0.7	8.0	4.6	65.6	295	477	234	125	6	364	113	1.32
1993/94*	0.8	7.9	3.8	54.4	206	428	193	125	3	321	106	1.36
1994/95*	0.6	6.6	4.0	57.2	230	415	175	125	2	302	113	1.15-1.35
Soybeans												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1989/90	0.0	60.8	59.6	32.3	1,924	2,109	7/ 101	1,148	623	1,870	239	5.69
1990/91	0.0	57.8	56.6	34.1	1,926	2,166	7/ 95	1,187	557	1,839	329	5.74
1991/92	0.0	59.2	58.0	34.2	1,987	2,319	7/ 103	1,254	684	2,041	278	5.58
1992/93*	0.0	59.1	58.2	37.6	2,188	2,468	7/ 127	1,279	770	2,176	292	5.56
1993/94*	0.0	60.1	57.3	32.6	1,869	2,167	7/ 99	1,272	593	1,958	209	6.40
1994/95*	0.0	61.6	60.7	40.5	2,458	2,872	7/ 117	1,350	740	2,207	465	4.60-5.30
Soybean oil												
								Mil. lbs.				¢/Cts./lb.
1989/90	—	—	—	—	13,004	14,741	—	12,083	1,353	13,436	1,305	22.30
1990/91	—	—	—	—	13,408	14,730	—	12,164	780	12,944	1,788	21.00
1991/92	—	—	—	—	14,345	16,132	—	12,245	1,648	13,893	2,239	19.10
1992/93*	—	—	—	—	13,778	16,027	—	13,053	1,419	14,472	1,555	21.40
1993/94*	—	—	—	—	13,865	15,485	—	12,975	1,435	14,410	1,076	27.00
1994/95*	—	—	—	—	15,175	16,285	—	13,200	1,625	14,825	1,460	21.5-24.0
Soybean meal												
								1,000 tons				¢/\$/ton
1989/90	—	—	—	—	27,719	27,900	—	22,263	5,319	27,582	318	188.48
1990/91	—	—	—	—	28,325	28,688	—	22,834	5,469	28,403	285	181.40
1991/92	—	—	—	—	29,831	30,183	—	23,008	6,945	29,953	230	189.20
1992/93*	—	—	—	—	30,364	30,687	—	24,251	6,232	30,483	204	193.75
1993/94*	—	—	—	—	30,371	30,640	—	25,050	5,375	30,425	215	193.00
1994/95*	—	—	—	—	32,075	32,350	—	26,150	5,900	32,050	300	150-165

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area			Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price 5/
	Set Aside 3/	Planted	Harvested									
	Mil. acres			Lb./acre	Mil. bales							Cts./lb.
Cotton 10/												
1989/90	3.5	10.6	9.5	814	12.2	19.3	—	8.8	7.7	16.5	3.0	66.20
1990/91	2.0	12.3	11.7	834	15.5	18.5	—	8.7	7.8	16.5	2.3	67.10
1991/92	1.2	14.1	13.0	852	17.6	20.0	—	8.6	6.7	16.3	3.7	58.10
1992/93*	1.7	13.2	11.1	699	16.2	19.9	—	10.3	5.2	15.5	4.7	54.90
1993/94*	1.4	13.4	12.8	606	16.2	20.8	—	10.4	7.0	17.3	3.5	59.00
1994/95*	1.7	14.1	13.4	690	19.3	22.8	—	11.0	7.0	18.0	4.9	11/

*Oct. 12, 1994 Supply & Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats; August 1 for cotton & rice; September 1 for soybeans, corn, & sorghum; October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres; 1 metric ton = 2204.622 pounds; 38.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, & 4.59 480-pound bales of cotton. 3/ Includes diversion, acreage reduction, 50-92, & 0-92 programs. 0/92 & 50/92 set-aside includes idled acreage & acreage planted to minor oilseeds, sesame, and crambe. 4/ Includes imports. 5/ Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Simple average of crude soybean oil, Decatur. 9/ Simple average of 49 percent, Decatur. 10/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. 11/ USDA is prohibited from publishing cotton price projections. — = not available or not applicable.

Information contacts: Wheat, rice & feed grains, Jenny Gonzales (202) 501-8552; soybeans, soybean products & cotton, Mae Dean Johnson (202) 501-8522

Table 18.—Cash Prices, Selected U.S. Commodities

	Marketing year 1/				1993	1994				
	1989/90	1990/91	1991/92	1992/93	Aug	Apr	May	June	July	Aug
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	4.22	2.94	3.77	3.87	3.34	3.63	3.85	3.60	3.48	3.70
Wheat, DNS, Minneapolis (\$/bu.) 3/	4.16	3.08	3.82	3.91	4.88	4.99	5.05	4.20	4.14	4.00
Rice, S.W. La. (\$/cwt) 4/	15.55	15.25	16.50	13.30	12.05	22.75	21.00	18.50	16.15	14.30
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.54	2.41	2.52	2.22	2.37	2.78	2.75	2.71	2.32	2.24
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.21	4.08	4.36	3.74	4.01	4.33	4.38	4.43	3.79	3.73
Barley, feed, Duluth (\$/bu.) 5/	2.20	2.13	2.17	2.11	1.89	2.08	2.11	2.05	2.02	1.99
Barley, malting, Minneapolis (\$/bu.)	3.28	2.42	2.38	2.37	2.27	2.73	2.84	2.86	2.57	2.46
U.S. price, SLM, 1-1/16 in. (cts./lb.) 6/	69.8	74.8	56.7	54.1	53.0	76.1	79.3	76.9	71.7	70.3
Northern Europe prices index (cts./lb.) 7/	82.3	82.9	62.9	56.9	55.5	83.9	86.1	85.1	81.7	76.7
U.S. M 1-3/32 in. (cts./lb.) 8/	83.6	88.2	66.3	62.5	57.3	86.8	90.6	86.1	79.9	77.3
Soybeans, no. 1 yellow, 30 day, Chicago (\$/bu.)	5.86	5.76	5.75	5.96	6.68	6.62	6.79	6.79	6.05	5.75
Soybean oil, crude, Decatur (cts./lb.)	22.30	21.00	19.10	21.40	23.33	27.94	27.72	27.51	24.50	24.50
Soybean meal, 48% protein, Decatur (\$/ton) 9/	186.50	181.40	189.20	193.75	219.10	188.90	193.07	195.50	181.10	178.60

1/ Beginning June 1 for wheat & barley, Aug. 1 for rice & cotton; Sept. 1 for corn, sorghum & soybeans; Oct. 1 for soybean meal & oil. 2/ Ordinary protein. 3/ 14% protein. 4/ Long grain, milled basis. 5/ Beginning Mar. 1987 reporting point changed from Minneapolis to Duluth. 6/ Average spot market. 7/ Liverpool Cotelock "A" Index, average of five lowest prices of 13 selected growths. 8/ Memphis territory growths. 9/ Note change to 48% protein.

Information contacts: Wheat, rice, & feed grains, Jenny Gonzales (202) 501-8552; Soybeans, soybean products, & cotton, Mae Dean Johnson (202) 501-8522.

Table 19.—Farm Programs, Price Supports, Participation & Payment Rates

	Payment rates						Effective base acres 2/	Program 3/	Participation rate 4/
	Target price	Basic loan rate	Findley or announced loan rate 1/	Paid land diversion		Total deficiency			
				Mandatory	Optional				
				\$/bu.			Mil. acres	Percent of base	Percent of base
Wheat									
1988/89	4.23	2.76	2.21	0.69	---	---	84.8	27.5/0/0	86
1989/90	4.10	2.58	2.08	0.32	---	---	82.3	10/0/0	78
1990/91 5/	4.00	2.44	1.95	1.28	---	---	80.5	8/ 5/0/0	83
1991/92	4.00	2.52	2.04	*1.35	---	---	79.2	15/0/0	85
1992/93	4.00	2.58	2.21	0.81	---	---	78.9	5/0/0	83
1993/94	4.00	2.86	2.45	**1.03	---	---	78.4	0/0/0	88
1994/95	4.00	2.72	2.58	***0.95	---	---	78.2	0/0/0	87
1995/96	4.00	---	---	---	---	---	---	0/0/0	---
				\$/cwt					
Rice									
1988/89	11.15	6.83	7/ 6.50	4.31	---	---	4.2	25/0/0	94
1989/90	10.80	6.50	7/ 6.00	3.66	---	---	4.2	25/0/0	94
1990/91 5/	10.71	6.50	7/ 5.40	4.16	---	---	4.2	20/0/0	95
1991/92	10.71	6.50	7/ 5.85	3.07	---	---	4.2	5/0/0	95
1992/93	10.71	6.50	7/ 4.70	4.21	---	---	4.1	0/0/0	98
1993/94	10.71	6.50	7/ 5.75	**3.98	---	---	4.1	5/0/0	97
1994/95	10.71	6.50	7/ ---	***3.44	---	---	4.2	0/0/0	94
				\$/bu.					
Corn									
1988/89	2.93	2.21	1.77	0.39	---	1.75	82.9	20/0/10	87
1989/90	2.84	2.06	1.65	0.58	---	---	82.7	10/0/0	79
1990/91 5/	2.75	1.96	1.57	0.51	---	---	82.6	10/0/0	78
1991/92	2.75	1.89	1.62	0.41	---	---	82.7	7.5/0/0	77
1992/93	2.75	2.01	1.72	0.73	---	---	82.1	5/0/0	76
1993/94	2.75	1.99	1.72	**0.28	---	---	81.8	10/0/0	81
1994/95	2.75	1.99	1.89	***0.45	---	---	81.8	7.5/0/0	82
				\$/bu.					
Sorghum									
1988/89	2.78	2.10	1.68	0.48	---	1.65	16.6	20/0/10	82
1989/90	2.70	1.96	1.57	0.66	---	---	16.2	10/0/0	71
1990/91 5/	2.61	1.85	1.49	0.58	---	---	15.4	10/0/0	70
1991/92	2.61	1.80	1.54	0.37	---	---	13.5	7.5/0/0	77
1992/93	2.61	1.91	1.63	0.72	---	---	13.6	5/0/0	79
1993/94	2.61	1.89	1.63	**0.25	---	---	13.5	5/0/0	82
1994/95	2.61	1.89	1.80	***0.51	---	---	13.5	0/0/0	81
				\$/bu.					
Barley									
1988/89	2.51	1.80	1.44	0.00	---	1.40	12.5	20/0/10	79
1989/90	2.44	1.68	1.34	0.00	---	---	12.3	10/0/0	67
1990/91 5/	2.38	1.60	1.28	0.20	---	---	11.9	10/0/0	68
1991/92	2.36	1.54	1.32	0.82	---	---	11.5	7.5/0/0	76
1992/93	2.36	1.64	1.40	0.56	---	---	11.1	5/0/0	75
1993/94	2.36	1.62	1.40	**0.87	---	---	10.8	0/0/0	83
1994/95	2.36	1.62	1.54	***0.51	---	---	10.7	0/0/0	84
				\$/bu.					
Oats									
1988/89	1.55	1.14	0.91	0.00	---	---	7.9	5/0/0	30
1989/90	1.50	1.06	0.85	0.00	---	---	7.6	5/0/0	18
1990/91 5/	1.45	1.01	0.81	0.32	---	---	7.5	5/0/0	09
1991/92	1.45	0.97	0.83	0.35	---	---	7.3	0/0/0	38
1992/93	1.45	1.03	0.88	0.17	---	---	7.2	0/0/0	40
1993/94	1.45	1.02	0.88	**0.11	---	---	7.1	0/0/0	46
1994/95	1.45	1.02	0.97	***0.16	---	---	6.8	0/0/0	41
				\$/bu.					
Soybeans 9/									
1988/89	---	---	4.77	---	---	---	---	---	---
1989/90	---	---	4.53	---	---	---	---	---	---
1990/91 5/	---	---	4.50	---	---	---	---	---	---
1991/92	---	---	5.02	---	---	---	---	---	---
1992/93	---	---	5.02	---	---	---	---	---	---
1993/94	---	---	5.02	---	---	---	---	---	---
1994/95	---	---	4.92	---	---	---	---	---	---
				Cts./lb.					
Upland cotton									
1988/89	75.9	51.80	11/ 51.80	19.4	---	---	14.5	12.5/0/0	89
1989/90	73.4	50.00	11/ 50.00	13.1	---	---	14.6	25/0/0	89
1990/91 5/	72.9	50.27	11/ 50.27	7.3	---	---	14.4	12.5/0/0	86
1991/92 12/	72.9	50.77	11/ 47.23	10.1	---	---	14.6	5/0/0	84
1992/93	72.9	52.35	11/ 43.80	20.3	---	---	14.9	10/0/0	89
1993/94	72.9	52.35	11/ 49.00	**19.4	---	---	15.1	7.5/0/0	91
1994/95	72.9	50.00	11/ ---	***6.9	---	---	15.3	11/0/0	89

1/ There are no Findley loan rates for rice or cotton. See footnotes 7/ & 11/. 2/ National effective crop acreage base as determined by ASCS. Net of CRP.

3/ Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acres idled must be devoted to a conserving use to receive program benefits. 4/ Percentage of effective base acres enrolled in acreage reduction programs. 5/ Payments & loans were reduced by 1.4 percent in 1990/91 due to Gramm-Rudman-Hollings. Budget Reconciliation Act reductions to deficiency payment rates were also in effect in that year. Data do not include these reductions. 6/ Under 1990 modified contracts, participating producers plant up to 105 percent of their wheat base acres. For every acre planted above 95 percent of base, the acreage used to compute deficiency payments was cut by 1 acre. 7/ A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). However, loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to market-year average loan repayment rates. 8/ The sorghum, oats, & barley programs are the same as for corn except as indicated. 9/ There are no target prices, base acres, acreage reduction programs, or deficiency payment rates for soybeans. 10/ Nominal percentage of program crop base acres permitted to shift into soybeans without loss of base. 11/ A marketing loan has been in effect for cotton since 1986/87. In 1987/88 & after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. 12/ A marketing certificate program was implemented on Aug. 1, 1991. — = not available.

* For wheat, the 1991/92 rate is the total deficiency payment rate for the "regular" program. For the winter wheat option, the rate is \$1.25.

** For wheat, corn, sorghum, barley and oats, regular deficiency payment rate based on the 5-month price. For rice and upland cotton, total deficiency payment rate.

*** Estimated total deficiency payment rate based on Fiscal Year 1995 President's Budget Mid-Session Review.

Note: 1993 effective base acres and participation rates are from the May 18 Final Compliance Report

Information contact: Agricultural Stabilization and Conservation Service (202) 690-0640.

Table 20.—Fruit

	1985	1986	1987	1988	1989	1990	1991	1992	1993 P
Citrus 1/ Production (1,000 ton)	10,525	11,058	11,993	12,781	13,186	10,880	11,285	12,452	15,346
Per capita consumpt. (lbs.) 2/	21.5	24.2	23.9	25.4	23.5	21.4	19.1	24.4	28.0
Noncitrus 3/ Production (1,000 tons)	14,191	13,874	16,011	15,893	16,365	15,857	15,748	17,116	16,556
Per capita consumpt. (lbs.) 2/	65.4	68.9	72.5	72.4	73.1	71.1	70.6	73.9	74.0
	1993	1994							
	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
F.o.b. shipping point prices									
Apples (\$/carton) 4/	12.00	12.00	13.00	12.30	11.25	10.43	10.00	15.40	12.93
Pears (\$/box) 5/	10.05	16.40	16.33	14.00	15.00	7.70	16.38	16.00	—
Grower prices									
Oranges (\$/box) 6/	3.95	3.91	4.14	4.48	5.35	5.81	5.31	3.47	4.56
Grapefruit (\$/box) 6/	4.38	3.20	3.20	2.54	2.27	1.53	0.97	1.82	3.95
Stocks, ending									
Fresh apples (mil. lbs.)	4,427.9	3,747.3	2,937.8	2,205.0	1,582.8	1,021.9	587.4	260.1	69.0
Fresh pears (mil. lbs.)	358.5	297.3	238.9	166.0	122.0	55.6	14.8	44.2	198.7
Frozen fruits (mil. lbs.)	1,008.8	935.7	848.3	769.6	761.2	737.1	812.1	981.5	1,035.4
Frozen orange juice (mil. lbs.)	955.5	1,229.0	1,407.3	1,273.9	1,499.6	1,615.2	1,521.8	1,449.1	1,260.9

1/ 1992 indicated 1991/92 season. 2/ Fresh per capita consumption. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. P = preliminary. — = not available.

Information contact: Diane Bertelsen (202) 219-0887

Table 21.—Vegetables

	Calendar year									
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993 P
Production										
Total vegetables (1,000 cwt)	456,334	453,030	448,629	478,381	488,779	542,437	561,704	564,581	538,637	532,109
Fresh (1,000 cwt) 1/ 3/	201,817	203,649	203,185	220,539	228,397	239,281	239,104	229,505	245,752	237,027
Processed (tons) 2/ 3/	12,725,880	12,474,040	12,273,200	12,892,100	12,019,110	15,157,790	16,130,020	16,753,820	14,644,280	14,754,080
Mushrooms (1,000 lbs) 4/	595,881	587,956	614,393	631,819	667,759	714,992	749,151	746,832	776,357	754,783
Potatoes (1,000 cwt)	362,039	406,809	361,743	389,320	356,438	370,444	402,110	417,622	425,367	419,416
Sweetpotatoes (1,000 cwt)	12,902	14,573	12,368	11,811	10,945	11,358	12,594	11,203	12,005	11,053
Dry edible beans (1,000 cwt)	21,070	22,298	22,960	26,031	18,253	23,729	32,379	33,785	22,615	21,842
	1993	1994								
	Aug	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Shipments (1,000 cwt)										
Fresh	17,974	18,056	17,281	17,809	24,149	22,043	24,714	33,842	18,145	18,743
Iceberg lettuce	4,413	3,877	3,376	3,407	4,815	3,849	4,119	4,774	3,891	4,205
Tomatoes, all	2,438	2,069	2,568	3,074	3,876	3,114	2,830	3,999	2,898	2,618
Dry-bulb onions	3,082	2,792	2,363	2,282	3,450	3,368	2,864	3,482	3,000	3,643
Other 5/	8,041	9,318	8,974	8,046	12,208	11,712	14,901	21,587	8,356	8,077
Potatoes, all	9,424	13,694	13,141	12,953	20,075	18,218	15,166	13,447	8,703	10,944
Sweetpotatoes	187	335	172	211	347	165	183	135	83	132

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Excludes estimates reinstated in 1992 to preserve series comparability. 4/ Fresh & processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 5/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, bell peppers, squash, cantaloupes, honeydews, & watermelons. P = preliminary. — = not available.

Information contacts: Gary Lucier (202) 219-0117 or John Love (202) 219-0388.

Table 22.—Other Commodities

	Annual					1993			1994	
	1989	1990	1991	1992	1993	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June
Sugar										
Production 1/	6,841	6,334	7,145	7,501	7,768	625	735	3,913	2,194	628
Deliveries 1/	8,340	8,681	8,704	8,936	9,030	2,201	2,491	2,270	2,116	2,277
Stocks, ending 1/	2,947	2,729	3,039	3,225	3,486	3,014	1,673	3,486	3,980	2,631
Coffee										
Composite green price N.Y. (cts./lb.)	95.17	76.93	70.09	55.30	64.31	55.07	69.47	72.21	78.08	110.44
Imports, green bean equiv. (mil. lbs.) 2/	2,685	2,715	2,553	2,989	2,498	596	575	570	561	446
	Annual					1993			1994	
	1991	1992	1993	May	Dec	Jan	Feb	Mar	Apr	May
Tobacco										
Avg. price to grower 3/										
Flue-cured (\$/lb.)	172.3	172.6	168.9	—	—	—	—	—	—	—
Burley (\$/lb.)	178.8	181.6	181.5	—	181.6	180.5	179.0	—	—	—
Domestic consumption 4/										
Cigarettes (bil.)	516.3	509.5	482.9	39.4	39.2	34.4	38.0	44.4	37.8	39.4
Large cigars (mil.)	2,231.9	2,217.1	2,237.8	175.2	210.3	139.3	156.1	204.4	177.2	198.9

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured. Oct-Sept for burley. 4/ Taxable removals. — = not available.

Information contacts: Sugar, Futur Boscovick (202) 219-0931; Coffee, Fred May (202) 219-0511; Tobacco, Verner Grise (202) 219-0890.

World Agriculture

Table 23.—World Supply & Utilization of Major Crops, Livestock & Products

	1988/89	1989/90	1990/91	1991/92	1992/93 P	1993/94 F	1994/95 F
	Million units						
Wheat							
Area (hectares)	217.4	225.8	231.5	222.4	222.7	222.0	215.3
Production (metric tons)	495.0	533.2	588.2	542.6	561.5	558.8	532.0
Exports (metric tons) 1/	102.4	102.8	101.2	109.3	112.5	98.8	96.8
Consumption (metric tons) 2/	524.3	532.2	583.5	558.2	545.2	566.7	556.4
Ending stocks (metric tons) 3/	120.5	121.5	146.2	130.6	146.9	139.0	114.5
Coarse grains							
Area (hectares)	323.4	321.1	314.5	318.2	318.9	310.4	311.4
Production (metric tons)	721.0	791.0	821.7	803.1	862.8	785.4	858.4
Exports (metric tons) 1/	95.5	103.9	88.4	94.4	90.1	63.4	84.0
Consumption (metric tons) 2/	785.0	813.8	809.3	806.5	833.6	828.1	848.4
Ending stocks (metric tons) 3/	151.0	128.2	140.6	137.2	166.4	123.7	133.7
Rice, milled							
Area (hectares)	145.5	146.6	146.7	148.1	145.2	144.3	144.9
Production (metric tons)	330.1	343.1	350.7	352.3	352.5	350.3	352.1
Exports (metric tons) 4/	13.9	11.7	12.1	14.1	14.8	15.5	15.1
Consumption (metric tons) 2/	327.7	336.5	345.9	355.9	353.4	355.2	357.5
Ending stocks (metric tons) 3/	47.9	54.5	59.2	55.6	54.7	49.9	44.4
Total grains							
Area (hectares)	686.3	693.5	692.7	686.7	686.8	676.7	671.6
Production (metric tons)	1,546.1	1,867.3	1,760.6	1,698.0	1,776.8	1,694.5	1,742.5
Exports (metric tons) 1/	211.8	218.4	201.7	217.8	217.4	197.7	196.8
Consumption (metric tons) 2/	1,637.0	1,682.5	1,718.7	1,720.6	1,732.2	1,750.0	1,762.3
Ending stocks (metric tons) 3/	319.4	304.2	346.0	323.4	368.0	312.6	292.6
Oilseeds							
Crush (metric tons)	164.5	171.7	176.6	185.2	183.6	186.4	197.7
Production (metric tons)	201.6	212.4	215.7	224.5	227.1	227.1	251.4
Exports (metric tons)	31.5	35.6	33.4	37.6	37.7	37.1	41.9
Ending stocks (metric tons)	22.1	23.7	23.4	21.8	23.3	20.5	26.6
Meats							
Production (metric tons)	111.1	116.8	119.1	125.0	124.2	127.8	134.5
Exports (metric tons)	37.4	39.8	40.7	43.2	41.6	42.9	44.0
Oils							
Production (metric tons)	53.3	57.1	58.1	60.6	60.9	62.2	65.8
Exports (metric tons)	18.1	20.4	20.5	21.1	20.8	21.8	22.4
Cotton							
Area (hectares)	33.8	31.0	33.2	34.8	32.6	30.5	32.6
Production (bales)	84.4	79.7	87.0	96.0	82.6	76.5	87.0
Exports (bales)	33.4	31.3	29.7	28.1	25.4	26.6	27.0
Consumption (bales)	85.3	86.6	85.5	84.5	85.5	84.6	86.1
Ending stocks (bales)	31.4	25.6	28.1	40.1	37.6	29.6	30.2
	1988	1989	1990	1991	1992	1993 P	1994 F
Red meat							
Production (metric tons)	110.5	112.3	113.9	115.5	116.5	116.9	119.9
Consumption (metric tons)	108.3	110.9	111.8	113.5	113.5	114.2	117.2
Exports (metric tons) 1/	8	8.2	8.2	8.4	7.9	8.0	8.1
Poultry 5/							
Production (metric tons)	32	32.4	34.2	36.1	38.3	39.7	41.2
Consumption (metric tons)	31.4	31.8	33.5	35.5	37.8	39.1	40.7
Exports (metric tons) 1/	1.7	1.7	1.9	2.2	2.3	2.7	2.8
Dairy							
Milk production (metric tons) 6/	—	387.4	395.3	385.3	379.6	379.9	381.1

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1989 data correspond with 1988/89, etc. 5/ Poultry excludes the Peoples Republic of China before 1986. 6/ Data prior to 1989 no longer comparable. P = preliminary. F = forecast. — = not available.

Information contacts: Crops, Carol Whitton (202) 219-0825; red meat & poultry, Shayle Shagam (202) 219-0360; dairy, James Miller (202) 219-0770.

Table 24.—Prices of Principal U.S. Agricultural Trade Products.

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr	May	June	July	Aug
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.52	4.13	3.83	3.56	3.85	3.83	3.82	3.79	3.75	4.03
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.75	2.66	2.62	2.61	3.05	2.67	2.81	2.85	2.50	2.44
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.89	2.83	2.56	2.58	2.93	2.74	2.77	2.75	2.49	2.44
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	6.05	6.01	6.53	7.01	7.12	6.88	7.04	6.99	6.28	5.96
Soybean oil, Decatur (cts./lb.)	20.14	19.16	22.83	23.34	26.82	27.95	29.01	27.51	24.50	24.49
Soybean meal, Decatur (\$/ton)	172.90	177.79	199.18	219.06	194.98	189.22	193.07	196.60	181.81	178.95
Import commodities										
Cotton, 7-market avg. spot (cts./lb.)	69.69	53.90	55.36	53.04	72.74	76.12	79.34	76.85	71.87	70.32
Tobacco, avg. price at auction (cts./lb.)	179.23	172.58	171.85	159.05	158.01	169.97	169.97	169.97	172.04	160.08
Rice, f.o.b. mill, Houston (\$/cwt)	16.46	16.80	16.12	13.50	24.88	23.25	21.40	19.25	17.25	15.80
Inedible tallow, Chicago (cts./lb.)	13.28	14.37	14.89	14.25	15.44	14.94	15.56	16.27	17.28	19.00
Import commodities										
Coffee, N.Y. spot (\$/lb.)	0.71	0.50	0.59	0.83	0.74	0.79	1.10	1.27	2.15	1.89
Rubber, N.Y. spot (cts./lb.)	45.73	48.25	48.00	43.85	49.82	50.83	51.42	55.08	62.49	66.35
Cocoa beans, N.Y. (\$/lb.)	0.52	0.47	0.47	0.46	0.55	0.52	0.58	0.81	0.66	0.65

Information contact: Mary Teymourian (202) 501-8516.

Table 25.—Indexes of Real Trade-Weighted Dollar Exchange Rates ^{1/}

	1993	1994									
	Dec	Jan	Feb	Mar	Apr	May P	Jun P	July P	Aug P	Sep P	Oct P
	1985 = 100										
Total U.S. trade 2/	70.8	70.1	69.1	68.9	67.7	67.1	65.3	65.5	64.8	64.1	63.3
Agricultural trade											
U.S. markets	77.9	77.0	76.6	76.5	76.2	76.2	74.7	74.8	74.4	74.1	73.7
U.S. competitors	78.1	78.3	77.8	78.2	77.3	76.8	75.5	75.4	75.0	74.6	74.0
Wheat											
U.S. markets	92.9	91.6	90.7	91.0	91.1	91.2	89.6	89.1	88.8	88.5	88.1
U.S. competitors	76.8	77.2	77.6	78.0	77.5	77.0	76.5	76.4	76.3	76.1	75.8
Soybeans											
U.S. markets	67.2	66.2	65.5	65.1	64.5	64.1	62.4	62.6	62.0	61.5	60.9
U.S. competitors	48.7	48.6	48.1	47.9	47.7	48.1	47.7	47.6	47.5	47.4	47.3
Corn											
U.S. markets	68.4	67.0	66.8	66.4	66.4	66.7	65.2	65.3	65.1	64.8	64.6
U.S. competitors	59.8	59.7	59.1	59.2	58.5	58.0	57.0	57.0	56.6	56.2	55.7
Cotton											
U.S. markets	73.1	71.6	71.3	70.8	70.5	70.3	69.0	69.2	68.8	68.4	68.0
U.S. competitors	104.3	105.3	105.0	105.8	104.2	102.8	100.5	100.1	99.3	98.5	97.4

1/ Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of *Agricultural Outlook* for a discussion of the calculations and the weights used. 2/ Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Douglas Rhoades (202) 219-0754.

Table 26.—Trade Balance

	Fiscal year 1/								July
	1987	1988	1989	1990	1991	1992	1993	1994 F	1994
	\$ million								
Exports									
Agricultural	27,876	35,316	39,590	40,220	37,609	42,430	42,590	42,500	3,148
Nonagricultural	202,911	258,656	301,269	326,059	356,682	383,517	390,783	—	33,921
Total 2/	230,787	293,972	340,859	366,279	394,291	425,947	433,373	—	37,069
Imports									
Agricultural	20,650	21,014	21,476	22,560	22,588	24,323	24,454	25,500	1,972
Nonagricultural	367,374	409,138	441,076	458,101	463,720	488,556	537,584	—	52,292
Total 3/	388,024	430,152	462,551	480,661	486,308	512,879	562,038	—	54,264
Trade balance									
Agricultural	7,226	14,302	18,114	17,660	15,021	18,107	18,136	17,000	1,176
Nonagricultural	-164,463	-150,482	-139,806	-132,042	-107,038	-105,039	-148,801	—	-18,371
Total	-157,237	-136,180	-121,692	-114,382	-92,017	-86,932	-128,665	—	-17,195

1/ Fiscal years begin October 1 & end September 30. Fiscal year 1994 began Oct. 1, 1993 & ended Sept. 30, 1994. 2/ Domestic exports including Department of Defense shipments (F.A.S. value). 3/ Imports for consumption (customs value). F = forecast. — = not available.

Information contact: Joel Greene (202) 219-0816.

Table 27.—U.S. Agricultural Exports & Imports

	Fiscal year*			July	Fiscal year*			July
	1992	1993	1994 F	1994	1992	1993	1994 F	1994
	1,000 units				\$ million			
EXPORTS								
Animals, live (no.) 1/	1,478	1,107	—	98	567	358	—	30
Meats & preps., excl. poultry (mt)	1,107	1,160	2/ 1,000	115	3,238	3,349	—	289
Dairy products (mt) 1/	174	211	—	9	641	762	900	45
Poultry meats (mt)	794	986	1,300	110	915	1,031	—	115
Fats, oils, & greases (mt)	1,392	1,382	1,300	96	498	519	—	39
Hides & skins incl. furskins	—	—	—	—	1,336	1,288	—	127
Cattle hides, whole (no.) 1/	20,803	19,784	—	1,685	1,106	1,062	—	100
Mink pelts (no.) 1/	3,160	3,119	—	188	52	56	—	7
Grains & feeds (mt)	100,881	103,743	—	8,153	13,873	14,104	3/13,200	935
Wheat (mt)	34,322	38,078	31,000	1,805	4,323	4,737	4/ 4,200	240
Wheat flour (mt)	813	1,075	1,000	135	165	217	—	21
Rice (mt)	2,279	2,710	2,400	213	757	766	900	87
Feed grains, incl. products (mt)	50,752	50,705	38,700	2,954	5,801	5,261	4,500	324
Feeds & ladders (mt)	11,287	11,500	5/ 11,900	918	2,019	2,147	—	180
Other grain products (mt)	1,448	1,676	—	130	807	976	—	82
Fruits, nuts, & preps. (mt)	3,505	3,398	—	297	3,514	3,409	4,100	295
Fruit juices incl.								
froz. (1,000 hectoliters) 1/	7,767	7,845	—	940	427	423	—	50
Vegetables & preps. (mt)	2,703	2,790	—	262	2,790	3,220	—	287
Tobacco, unmanufactured (mt)	246	231	—	10	1,568	1,443	1,200	82
Cotton, excl. linters (mt)	1,494	1,125	1,600	136	2,183	1,526	2,300	223
Seeds (mt)	612	533	—	64	650	648	600	30
Sugar, cane or beet (mt) 1/	492	337	—	46	154	106	—	16
Oilseeds & products (mt)	28,671	29,190	—	1,038	7,162	7,211	6,800	315
Oilseeds (mt)	19,939	21,049	—	494	4,735	4,982	—	145
Soybeans (mt)	19,277	20,400	15,800	465	4,318	4,606	4,100	119
Protein meal (mt)	7,082	6,539	—	423	1,445	1,261	—	78
Vegetable oils (mt)	1,651	1,601	—	120	982	968	—	92
Essential oils (mt)	13	13	—	1	184	185	—	18
Other	91	92	—	12	2,733	3,011	—	273
Total	142,175	145,171	125,600	8,349	42,430	42,590	42,500	3,148
IMPORTS								
Animals, live (no.) 1/	2,830	3,461	—	192	1,275	1,589	1,300	98
Meats & preps., excl. poultry (mt)	1,134	1,128	—	101	2,684	2,726	—	224
Beef & veal (mt)	813	793	780	72	1,933	1,919	1,900	154
Pork (mt)	283	276	315	24	625	663	800	58
Dairy products (mt) 1/	232	231	—	22	816	860	900	83
Poultry & products 1/	—	—	—	—	132	137	—	11
Fats, oils, & greases (mt)	46	44	—	3	26	30	—	2
Hides & skins, incl. furskins 1/	—	—	—	—	185	181	—	12
Wool, unmanufactured (mt)	54	60	—	4	167	173	—	13
Grains & feeds (mt)	5,446	4,942	10,300	726	1,548	1,639	2,200	182
Fruits, nuts, & preps., excl. juices (mt)	5,883	6,089	6,000	452	2,919	2,988	—	222
Bananas & plantains (mt)	3,628	3,737	3,700	304	1,083	1,083	1,000	80
Fruit juices (1,000 hectoliters) 1/	26,049	27,053	28,000	2,284	871	640	—	45
Vegetables & preps. (mt)	2,171	2,733	—	137	2,125	2,440	2,600	170
Tobacco, unmanufactured (mt)	364	386	300	8	1,299	1,101	900	18
Cotton, unmanufactured (mt)	11	12	—	1	10	11	—	1
Seeds (mt)	174	189	300	6	214	214	400	12
Nursery stock & cut flowers 1/	—	—	—	—	578	629	—	34
Sugar, cane or beet (mt)	1,623	1,589	—	75	633	591	—	28
Oilseeds & products (mt)	2,330	2,484	—	211	1,124	1,204	1,400	111
Oilseeds (mt)	429	373	—	42	135	130	—	14
Protein meal (mt)	629	618	—	58	84	89	—	8
Vegetable oils (mt)	1,273	1,492	—	111	904	985	—	89
Beverages excl. fruit								
juices (1,000 hectoliters) 1/	13,739	14,014	—	1,528	2,044	1,975	—	188
Coffee, tea, cocoa, spices (mt)	2,391	2,244	1,990	144	3,415	3,018	—	317
Coffee, incl. products (mt)	1,330	1,185	900	75	1,798	1,502	1,800	202
Cocoa beans & products (mt)	773	770	800	49	1,122	1,028	1,100	75
Rubber & allied gums (mt)	920	981	1,100	67	756	839	900	67
Other	—	—	—	—	1,503	1,488	—	132
Total	—	—	—	—	24,323	24,454	25,500	1,972

* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1994 began Oct. 1, 1993 & ended Sept. 30, 1994. 1/ Not included in total volume.

2/ Forecasts for footnoted items 2/-5/ are based on slightly different groups of commodities. Totals for fiscal 1993 forecast commodities were 2/ 903,000 tons. 3/ \$14,332 million. 4/ \$4,954 million, includes flour. 5/ 11,885 million tons. F = forecast. — = not available.

Information contact: Joel Greene (202) 219-0816.

Table 28.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			July	Change from year* earlier			July
	1992	1993	1994 F	1994	1992	1993	1994 F	1994
	\$ million			Percent				
WESTERN EUROPE	7,740	7,499	6,800	378	6	-3	-9	1
European Union	7,193	7,022	6,300	341	8	-2	-10	0
Belgium-Luxembourg	461	482	—	32	-1	5	—	34
France	818	813	—	29	8	-1	—	-11
Germany	1,081	1,146	—	50	-4	5	—	6
Italy	684	568	—	25	1	-17	—	26
Netherlands	1,812	1,801	—	73	18	-1	—	-24
United Kingdom	882	918	—	63	0	4	—	9
Portugal	240	223	—	11	-4	-7	—	124
Spain, incl. Canary Islands	951	828	—	27	11	-13	—	-26
Other Western Europe	546	477	500	36	2	-13	5	17
Switzerland	187	152	—	10	-4	-18	—	13
EASTERN EUROPE	222	468	300	17	-27	111	-36	-18
Poland	49	230	—	12	7	368	—	93
Former Yugoslavia	50	47	—	1	-32	-6	—	101
Romania	76	107	—	2	-7	42	—	-77
Former Soviet Union	2,704	1,561	1,500	66	54	-42	-4	-13
ASIA	17,782	17,832	17,400	1,474	10	0	-2	9
West Asia (Mideast)	1,770	1,822	1,700	129	24	9	-12	-5
Turkey	344	369	—	11	54	7	—	-64
Iraq	0	1	0	0	0	150	—	0
Israel, incl. Gaza & W. Bank	346	382	400	38	21	10	5	-24
Saudi Arabia	548	463	500	25	2	-18	8	38
South Asia	536	841	—	27	43	20	—	-4
Bangladesh	123	52	—	3	84	-58	—	505
India	117	228	—	12	24	93	—	73
Pakistan	228	236	300	1	57	4	27	-4
China	890	322	700	128	3	-53	117	1,985
Japan	8,383	8,481	9,400	648	8	1	11	-2
Southeast Asia	1,470	1,551	—	140	19	8	—	12
Indonesia	353	327	—	37	27	-7	—	20
Philippines	443	512	500	39	19	18	-2	-15
Other East Asia	4,934	4,935	5,200	403	8	0	5	3
Taiwan	1,916	1,999	2,200	129	10	4	10	-17
Korea, Rep.	2,200	2,041	1,800	176	2	-7	-7	4
Hong Kong	817	880	1,000	97	10	8	14	47
AFRICA	2,304	2,871	2,100	148	22	18	-21	-11
North Africa	1,411	1,859	1,400	103	2	18	-18	20
Morocco	156	310	—	11	21	98	—	-22
Algeria	478	458	700	38	0	-4	53	50
Egypt	709	756	800	40	2	7	-21	-9
Sub-Saharan	893	1,012	700	44	80	13	-31	-45
Nigeria	31	158	—	7	-30	413	—	-53
Rep. S. Africa	328	383	—	8	343	17	—	-52
LATIN AMERICA & CARIBBEAN	8,438	8,883	7,000	591	17	7	2	-6
Brazil	143	231	200	13	-47	81	-13	-26
Caribbean Islands	970	1,015	—	70	-4	5	—	-23
Central America	587	875	—	48	18	15	—	-25
Colombia	142	234	—	22	15	65	—	128
Mexico	3,676	3,660	3,900	371	27	0	7	3
Peru	179	172	—	22	19	-4	—	13
Venezuela	394	502	400	16	28	27	-20	-48
CANADA	4,812	5,220	5,200	439	9	8	0	2
OCEANIA	428	456	500	37	23	8	10	-5
TOTAL	42,430	42,590	42,500	3,148	13	0	0	-2
Developed countries	21,968	22,337	22,200	1,540	9	2	-1	-1
Developing countries	19,771	19,918	—	1,414	-17	1	—	-1
Other countries	691	335	—	194	3	-51	—	138

* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1994 began Oct. 1, 1993 & ended Sept. 30, 1994. F = forecast — = not available.
 Note: Adjusted for transshipments through Canada.

Information contact: Joel Greene (202) 219-0816.

Farm Income

Table 29.—Farm Income Statistics

	Calendar year										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993 P	1994 F
	\$ billion										
1. Farm receipts	147.7	150.1	140.0	148.6	158.4	168.9	177.5	176.6	179.0	183.9	186 to 192
Crops (incl. net CCC loans)	69.9	74.3	63.7	65.9	71.7	77.0	80.1	82.1	84.9	84.5	88 to 92
Livestock	72.9	69.8	71.6	76.0	79.4	84.1	89.8	86.7	85.3	90.6	89 to 93
Farm related 1/	4.9	6.0	5.7	6.6	7.3	7.8	7.6	7.8	7.8	8.6	7 to 9
2. Direct Government payments	8.4	7.7	11.8	16.7	14.5	10.9	9.3	8.2	9.2	13.4	8 to 10
Cash payments	4.0	7.0	8.1	6.6	7.1	9.1	8.4	8.2	9.2	13.4	8 to 10
Value of PIK commodities	4.5	0.1	3.7	10.1	7.4	1.7	0.9	0.0	0.0	0	0 to 1
3. Gross cash income (1+2) 2/	156.1	157.9	152.8	165.1	172.9	179.8	186.8	184.9	188.2	197.2	194 to 202
4. Nonmoney income 3/	5.9	5.6	5.5	5.0	6.3	8.1	8.0	7.7	7.8	7.9	7 to 9
5. Value of inventory change	8.0	-2.3	-2.2	-2.3	-3.4	4.8	3.4	-0.3	4.3	-3.6	4 to 6
6. Total gross farm income (3+4+5)	168.0	161.2	156.1	168.5	175.8	192.8	198.2	192.3	200.2	201.4	207 to 215
7. Cash expenses 4/	118.7	110.7	105.0	109.4	119.0	125.6	131.8	131.7	130.8	138.7	139 to 145
8. Total expenses	141.9	132.4	125.1	128.8	137.8	144.9	151.3	151.2	150.1	158.0	159 to 165
9. Net cash income (3-7)	37.4	47.1	47.8	55.8	53.9	54.2	55.1	53.2	57.4	58.5	53 to 57
10. Net farm income (6-8)	26.1	28.8	31.0	39.7	38.0	47.9	46.9	41.1	50.1	43.4	47 to 51
Deflated (1987\$)	28.7	30.5	32.0	39.7	37.3	43.3	41.1	34.9	41.5	34.9	37 to 41

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. Total may not add because of rounding. P = preliminary. F = forecast.
Note: 1988-92 accounts (primarily expenses) have been revised to reflect improved methods for estimating farm income. Call contact for information.

Information contact: Robert McElroy (202) 219-0802

Table 30.—Average Income to Farm Operator Households

	Calendar year					
	1989	1990	1991	1992	1993 P	1994 F
	\$ per operator household					
Farm income to household 1/	5,796	5,742	5,810	7,180	5,125	4,300 to 5,900
Self-employment farm income	4,723	4,973	4,458	5,172	4,710	—
Other farm income to household	1,073	768	1,352	2,008	415	—
Plus: Total off-farm income	28,223	33,265	31,838	35,731	33,178	35,500 to 37,500
Income from wages, salaries, and non-farm businesses	19,487	24,778	23,551	27,022	23,868	—
Income from interest, dividends, transfer payments, etc.	8,756	8,487	8,087	8,709	9,308	—
Equals: Farm operator household income	32,019	39,007	37,447	42,911	38,300	39,900 to 43,400

1/ Farm income to the household equals self-employment income plus amounts that operators pay themselves & family members to work on the farm, income from renting out acreage, & net income from a farm business other than the one being surveyed. Data for 1989-90 are based on surveys that did not fully account for small farms. Data for 1991 include an additional 350,000 farms, many with gross sales under \$10,000 & negative net farm incomes. P = preliminary. F = forecasts. — = not available at this time.

Information contact: Janet Perry (202) 219-0803.

Table 31.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1984	1985	1986	1987	1988	1989	1990	1991	1992 P	1993 F	1994 F
	\$ billion										
Assets											
Real estate	661.8	586.2	542.3	578.9	595.5	615.7	628.2	623.2	633.1	656	677 to 687
Non-real estate	195.2	188.5	182.1	193.7	205.6	214.1	220.2	219.1	228.4	229	230 to 240
Livestock & poultry	49.5	46.3	47.8	58.0	62.2	66.2	70.9	68.1	71.3	72	72 to 76
Machinery & motor vehicles	85.0	82.9	81.5	80.0	81.2	85.1	85.4	85.8	85.6	85	86 to 90
Crops stored 2/	26.1	22.9	18.3	17.5	23.3	23.4	22.8	22.0	24.1	23	24 to 28
Purchased inputs	2.0	1.2	2.1	3.2	3.5	2.8	2.8	2.6	3.9	4	2 to 4
Financial assets	32.6	33.3	34.5	35.1	35.4	36.8	38.3	40.6	43.4	45	45 to 49
Total farm assets	857.0	772.7	724.4	772.6	801.1	829.7	848.4	842.2	861.5	886	915 to 925
Liabilities											
Real estate debt 3/	106.7	100.1	90.4	82.4	77.6	75.4	74.1	74.6	75.6	76	75 to 79
Non-real estate debt 4/	87.1	77.5	66.6	62.0	61.7	61.9	63.2	64.3	63.6	66	64 to 68
Total farm debt	193.8	177.6	157.0	144.4	139.4	137.2	137.4	138.9	139.3	142	141 to 145
Total farm equity	663.3	595.1	567.5	628.2	661.7	692.4	710.9	703.3	722.2	744	771 to 781
	Percent										
Selected ratios											
Debt-to-assets	22.6	23.0	21.7	18.7	17.4	16.5	16.2	16.5	16.2	16	15 to 17
Debt-to-equity	29.2	29.8	27.7	23.0	21.1	19.8	19.3	19.7	19.3	19	18 to 20
Debt-to-net cash income	518	377	328	259	256	251	246	260	245	247	260 to 270

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson, (202) 219-0799, Jim Ryan (202) 219-0796.

Table 32.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1992	1993	June 1994	July 1994	1992	1993	June 1994	July 1994	1992	1993	June 1994	July 1994
	\$ million 2/											
NORTH ATLANTIC												
Maine	253	274	23	22	204	198	2	12	457	472	24	34
New Hampshire	65	65	5	5	81	99	3	5	146	164	8	10
Vermont	388	403	34	32	72	81	3	13	460	484	37	45
Massachusetts	126	122	10	10	381	375	21	24	487	497	32	34
Rhode Island	13	12	1	1	60	67	3	5	73	79	4	6
Connecticut	254	258	20	21	253	263	14	19	507	521	34	40
New York	1,907	1,888	159	147	1,010	930	80	66	2,917	2,818	239	213
New Jersey	190	199	16	17	463	508	83	80	653	707	99	97
Pennsylvania	2,554	2,621	208	201	1,044	1,091	76	65	3,598	3,712	283	265
NORTH CENTRAL												
Ohio	1,550	1,673	132	130	2,558	2,720	157	209	4,108	4,393	289	340
Indiana	1,824	1,931	154	141	2,639	3,186	202	246	4,463	5,117	357	387
Illinois	2,253	2,248	165	165	5,395	5,834	462	435	7,648	8,082	627	600
Michigan	1,311	1,376	107	109	1,910	1,991	100	147	3,221	3,367	207	257
Wisconsin	4,312	4,164	343	333	1,158	1,086	61	77	5,470	5,250	404	410
Minnesota	3,610	3,774	282	285	3,413	2,799	150	108	7,023	6,573	432	393
Iowa	5,600	5,829	419	383	4,809	4,173	227	190	10,409	10,002	646	573
Missouri	2,186	2,270	168	163	1,987	1,783	103	135	4,173	4,053	271	298
North Dakota	749	706	40	35	2,234	2,227	134	71	2,983	2,933	173	106
South Dakota	1,980	2,173	148	110	1,198	1,147	46	45	3,158	3,320	194	155
Nebraska	5,675	5,842	369	380	3,107	3,067	147	239	8,782	9,909	516	619
Kansas	4,783	4,870	356	384	2,387	2,493	137	428	7,170	7,363	493	811
SOUTHERN												
Delaware	451	463	46	41	177	159	13	12	628	622	59	53
Maryland	789	806	76	72	576	560	37	57	1,365	1,366	113	129
Virginia	1,382	1,385	114	112	778	683	43	69	2,140	2,068	157	161
West Virginia	267	328	26	24	78	77	7	7	343	405	33	32
North Carolina	2,798	3,201	259	253	2,379	2,256	116	134	5,177	5,457	375	386
South Carolina	545	603	42	44	652	618	53	49	1,197	1,221	95	93
Georgia	2,305	2,572	233	239	1,781	1,639	116	95	4,086	4,211	350	334
Florida	1,160	1,202	89	93	4,932	4,548	399	246	6,092	5,750	488	339
Kentucky	1,640	1,720	93	270	1,583	1,656	54	53	3,203	3,376	147	322
Tennessee	1,058	1,012	83	78	1,063	1,027	48	37	2,121	2,039	131	114
Alabama	2,047	2,184	180	198	769	726	52	38	2,816	2,910	231	236
Mississippi	1,355	1,577	149	133	1,280	1,028	36	17	2,635	2,605	185	150
Arkansas	2,710	2,902	270	272	1,950	1,480	110	66	4,660	4,382	380	338
Louisiana	611	688	57	59	1,299	1,069	22	21	1,910	1,757	78	80
Oklahoma	2,552	2,762	195	204	1,112	1,108	187	157	3,664	3,870	381	361
Texas	7,524	8,342	617	532	3,937	4,275	274	327	11,461	12,617	891	859
WESTERN												
Montana	898	938	31	25	808	843	57	31	1,706	1,761	88	57
Idaho	1,173	1,167	77	62	1,601	1,680	74	81	2,774	2,847	151	163
Wyoming	607	657	16	12	169	180	3	10	776	617	19	22
Colorado	2,746	2,879	168	196	1,055	1,204	69	113	3,801	4,083	237	309
New Mexico	1,039	1,135	79	77	492	486	57	67	1,531	1,621	136	144
Arizona	893	885	70	72	947	1,037	69	48	1,840	1,922	138	119
Utah	558	626	49	52	195	177	11	15	753	803	60	67
Nevada	202	187	14	12	74	102	7	10	276	289	21	22
Washington	1,548	1,561	125	122	2,888	3,013	203	185	4,436	4,574	328	307
Oregon	798	739	55	51	1,662	1,737	107	193	2,460	2,476	162	244
California	5,056	5,246	418	409	13,841	14,604	931	1,230	18,897	19,850	1,350	1,838
Alaska	6	6	0	1	20	20	2	2	26	26	2	3
Hawaii	88	85	8	7	431	406	34	35	519	491	42	42
UNITED STATES	86,349	90,555	6,798	6,614	84,852	84,497	5,402	6,024	171,202	175,052	12,199	12,840

1/ Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via postal mail or e-mail contact Bob Dubman at (202) 219-0809 or BDUBMAN@ERS.BITNET.

Table 33.—Cash Receipts From Farming

	Annual					1993	1994				
	1989	1990	1991	1992	1993	July	Mar	Apr	May	June	July
	\$ million										
Farm marketings & CCC loans	161,142	169,974	168,795	171,202	175,052	13,648	13,424	12,201	12,233	12,200	12,840
Livestock & products	84,122	89,843	86,735	86,350	90,565	7,429	7,787	7,163	7,293	6,798	6,814
Meat animals	46,867	51,911	51,089	48,487	51,364	4,009	4,354	3,783	4,065	3,383	3,288
Dairy products	19,399	20,149	18,037	19,835	19,316	1,635	1,780	1,739	1,763	1,844	1,587
Poultry & eggs	15,372	15,243	15,122	15,480	17,241	1,409	1,481	1,483	1,281	1,584	1,566
Other	2,498	2,540	2,487	2,509	2,635	376	193	177	185	196	376
Crops	77,020	80,131	82,080	84,853	84,497	6,217	5,836	5,038	4,941	5,402	6,025
Food grains	8,247	7,517	7,414	8,455	8,221	1,158	528	380	312	888	1,300
Feed crops	17,054	18,671	19,491	19,782	19,338	1,408	1,524	1,052	926	1,209	1,233
Cotton (lint & seed)	6,033	5,488	5,238	5,192	5,015	34	177	73	69	53	43
Tobacco	2,415	2,741	2,886	2,961	2,949	57	32	0	0	0	65
Oil-bearing crops	11,868	12,258	12,709	13,277	13,048	657	775	616	701	734	501
Vegetables & melons	11,592	11,449	11,661	11,767	12,658	1,108	948	991	1,320	1,068	1,148
Fruits & tree nuts	9,157	9,420	9,909	10,123	9,927	1,038	478	449	480	710	970
Other	11,657	12,586	12,854	13,297	13,345	761	1,175	1,497	1,134	742	767
Government payments	10,887	9,298	6,214	9,169	13,174	845	1,320	1,337	736	248	74
Total	172,029	179,272	177,009	180,371	188,226	14,491	14,744	13,538	12,969	12,448	12,914

* Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. --- = not available.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail contact Bob Dubman at (202) 219-0809 or BOUBMAN@ERS.BITNET.

Table 34.—Farm Production Expenses

	Calendar year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 F
	\$ million									
Feed purchased	16,949	17,472	17,463	20,246	20,744	20,387	19,331	20,132	21,433	21,000 to 24,000
Livestock & poultry purchased	9,184	9,758	11,842	12,784	13,138	14,833	14,274	13,868	14,949	13,000 to 15,000
Seed purchased	3,128	3,188	3,259	4,060	4,397	4,518	5,113	4,913	5,162	5,000 to 6,000
Farm-origin inputs	29,281	30,418	32,564	37,069	38,278	39,738	38,718	38,913	41,545	40,000 to 44,000
Fertilizer & lime	7,512	6,820	8,453	7,879	8,176	8,208	8,667	8,333	8,398	8,000 to 9,000
Fuels & oils	6,436	5,310	4,957	4,800	4,772	5,790	5,608	5,299	5,364	5,000 to 6,000
Electricity	1,878	1,795	2,156	2,360	2,648	2,607	2,634	2,811	2,677	2,000 to 3,000
Pesticides	4,334	4,324	4,512	4,148	5,012	5,362	6,319	6,489	6,718	6,000 to 8,000
Manufactured inputs	20,159	18,249	18,078	18,987	20,807	21,987	23,228	22,712	23,157	21,000 to 25,000
Short-term interest	8,735	7,367	6,767	6,712	6,740	6,658	6,124	5,395	6,334	5,000 to 6,000
Real estate interest 1/	9,878	9,131	8,205	7,581	7,190	6,740	5,963	5,772	5,501	5,000 to 6,000
Total interest charges	18,613	16,498	14,972	14,293	13,930	13,395	12,088	11,167	10,835	10,000 to 12,000
Repair & maintenance 1/	6,370	6,426	6,759	7,717	8,407	8,553	8,630	8,489	9,154	9,000 to 10,000
Contract & hired labor	10,008	9,484	9,975	10,911	12,034	14,120	14,012	14,008	15,005	14,000 to 16,000
Machine hire & custom work	2,354	2,099	2,105	3,112	3,380	3,565	3,520	3,836	4,411	3,000 to 4,000
Marketing, storage, & transportation	4,127	3,652	4,078	3,516	4,208	4,211	4,719	4,541	5,591	6,000 to 7,000
Misc. operating expenses 1/ 2/	10,010	9,759	11,171	11,991	11,998	12,725	13,536	12,835	14,099	12,000 to 14,000
Other operating expenses	32,868	31,420	34,088	37,248	40,025	43,173	44,417	43,690	48,260	48,000 to 52,000
Capital consumption 1/	19,299	17,788	17,991	17,610	18,168	18,267	18,249	18,317	18,422	18,000 to 19,000
Taxes 1/	4,542	4,612	4,853	4,954	5,213	5,687	5,615	5,834	6,259	6,000 to 7,000
Net rent to nonoperator landlords	7,690	6,099	7,124	7,619	8,667	9,049	8,879	9,507	9,551	9,000 to 11,000
Other overhead expenses	31,531	28,499	29,069	30,183	32,048	33,003	32,743	33,658	34,233	34,000 to 38,000
Total production expenses	132,433	125,084	128,772	137,780	144,888	151,277	151,194	150,139	158,030	159,000 to 165,000

1/ Includes operator dwellings. 2/ Beginning in 1992, miscellaneous operating expenses include other livestock purchases, dairy assessments & feeding fees paid by nonoperators. Totals may not add because of rounding. P = preliminary. F = forecast.

Information contacts: Chris McGath (202) 219-0808, Robert McElroy (202) 219-0802.

Table 35.—CCC Net Outlays by Commodity & Function

COMMODITY/PROGRAM	Fiscal year									
	1986	1987	1988	1989	1990	1991	1992	1993	1994 E	1995 E
	\$ million									
COMMODITY/PROGRAM										
Feed grains										
Corn	10,524	12,346	8,227	2,863	2,435	2,387	2,105	5,143	635	1,678
Grain sorghum	1,185	1,203	764	467	349	243	190	410	133	179
Barley	471	394	57	45	-94	71	174	188	237	149
Oats	26	17	-2	1	-5	12	32	18	6	20
Corn & oat products	5	7	7	8	8	9	9	10	8	0
Total feed grains	12,211	13,967	9,053	3,384	2,693	2,722	2,510	5,765	1,019	2,026
Wheat	3,440	2,836	678	53	796	2,805	1,719	2,185	1,972	2,015
Rice	947	906	128	631	667	867	715	887	756	1,031
Upland cotton	2,142	1,796	666	1,461	-79	382	1,443	2,239	1,496	384
Tobacco	253	-346	-453	-367	-307	-143	29	235	641	71
Dairy	2,337	1,166	1,295	679	505	839	232	253	237	227
Soybeans	1,597	-476	-1,676	-86	5	40	-29	109	-162	-38
Peanuts	32	8	7	13	1	48	41	-13	38	86
Sugar	214	-65	-246	-25	15	-20	-19	-35	-25	-32
Honey	89	73	100	42	47	19	17	22	10	4
Wool	123	152	1/ 5	93	104	172	191	179	210	114
Operating expense 3/	457	535	614	620	618	625	6	6	7	7
Interest expenditure	1,411	1,219	425	98	632	745	532	129	57	27
Export programs 4/	102	276	200	-102	-34	733	1,459	2,193	1,804	1,397
1989/95 Disaster/Tree/ livestock assistance	0	0	0	3,919	2/ 161	121	1,054	944	3,047	1,080
Other	486	371	1,665	110	647	155	-162	949	685	1,387
Total	25,841	22,408	12,461	10,523	6,471	10,110	9,738	16,047	11,792	9,786
FUNCTION										
Price-support loans (net),	13,828	12,199	4,579	-926	-399	418	584	2,065	621	321
Direct payments 5/										
Deficiency	6,166	4,633	3,971	5,798	4,176	6,224	5,491	8,607	4,360	5,047
Diversion	64	382	9	-1	0	0	0	0	0	0
Dairy termination	489	587	260	168	189	96	2	0	0	0
Loan Deficiency	27	60	0	42	3	21	214	387	483	76
Other	0	0	0	0	0	0	140	149	137	75
Disaster	0	0	6	4	0	0	0	0	0	0
Total direct Payments	6,746	5,662	4,245	6,011	4,370	6,341	5,847	9,143	4,980	5,198
1988-95 crop disaster	0	0	0	3,386	2/ 5	6	960	872	2,946	1,000
Emergency livestock/tree/ forage assistance	0	0	31	533	156	115	94	72	102	80
Purchases (net)	1,670	-479	-1,131	116	-48	646	321	525	506	249
Producer storage payments	485	832	658	174	185	1	14	9	13	13
Processing, storage, & transportation	1,013	1,659	1,113	659	278	240	185	136	94	110
Operating expense 3/	457	535	614	620	618	625	6	6	7	7
Interest expenditure	1,411	1,219	425	98	632	745	532	129	57	27
Export programs 4/	102	276	200	-102	-34	733	1,459	2,193	1,804	1,397
Other	328	305	1,727	-46	708	240	-264	897	660	1,384
Total	25,841	22,408	12,461	10,523	6,471	10,110	9,738	16,047	11,792	9,786

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates in FY 90 & were not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Promotion Program, starting in fiscal 1991 & starting in fiscal 1992 the Export Guarantee Program - Credit Reform, Export Enhancement Program, Dairy Export Incentive Program, and Technical Assistance to Emerging Democracies. 5/ Includes cash payments only. Excludes generic certificates in FY 86-94. E = Estimated in the FY 1995 Mid-Session Review Budget which was released July 14, 1994 based on June, 1994 supply & demand estimates. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 720-5148.

Food Expenditures

Table 36.—Food Expenditures

	Annual			1994			1994 year-to-date		
	1991 R	1992 R	1993 R	July	Aug	Sept P	July	Aug	Sept P
\$ billion									
Sales 1/									
Off-premise use 2/	318.4	319.7	327.0	29.1	28.7	28.0	192.1	220.8	248.6
Meals & snacks 3/	229.6	237.9	251.2	23.5	23.2	21.9	151.2	174.5	196.4
1993 \$ billion									
Sales 1/									
Off-premise use 2/	329.4	326.8	327.0	26.8	27.6	26.6	187.3	215.0	241.9
Meals & snacks 3/	251.2	242.1	251.2	23.1	22.8	21.5	149.2	171.9	193.4
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	4.5	0.4	2.3	1.6	4.1	4.3	2.6	3.0	3.1
Meals & snacks 3/	3.1	3.6	5.6	9.8	3.5	3.7	5.2	5.0	4.6
Percent change from year earlier (1993 \$ bil.)									
Sales 1/									
Off-premise use 2/	1.7	-0.9	0.1	-2.0	0.3	0.5	-0.2	-0.2	-0.1
Meals & snacks 3/	-0.3	1.6	3.7	-0.8	1.8	1.9	3.4	3.2	3.0

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. P = preliminary. R = revised.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, excluding alcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr. Econ. Rpt. No. 575, Aug 1987.

Information contact: Alden Manchester (202) 219-0756.

Transportation

Table 37.—Rail Rates; Grain & Fruit-Vegetable Shipments

	Annual			1993	1994					
	1991	1992	1993	Aug	Mar	Apr	May	June	July	Aug
Rail freight rate index 1/										
(Dec. 1984=100)										
All products	109.3	109.9	110.9	110.9	112.0	112.0	112.0	112.1 P	112.1 P	112.2 P
Farm products	111.4	111.1	113.7	113.3	114.8	114.3	114.3	114.1 P	113.7 P	113.4 P
Grain	111.2	111.4	114.7	114.2	115.7	115.1	115.1	114.8 P	114.3 P	114.3 P
Food products	108.1	108.7	109.0	108.9	110.7	110.9	110.9	110.9 P	110.9 P	112.5 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	26.6	27.4	27.1	25.7	25.1 P	23.7 P	22.2 P	22.0 P	24.5 P	26.1
Barge shipments (mil. ton) 3/	3.3	3.4	2.6	1.3	2.4	2.9	2.8	2.5	3.3	3.1
Fresh fruit & vegetable shipments 4/ 5/										
Piggy back (mil. cwt)	1.5	1.6	1.4	0.8	1.4	1.4	1.9	2.0	1.6	1.3
Rail (mil. cwt)	2.1	2.6	2.2	1.0	2.5	1.8	2.5	3.1	2.2	1.6
Truck (mil. cwt)	41.9	44.0	44.8	39.4	46.0	54.2	51.9	52.7	39.3	36.5
Cost of operating trucks										
hauling produce 4/										
Fleet operation (cts./mile)	126.5	124.1	127.2	126.2	128.1	128.2	127.8	127.4	127.5	126.0

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Shipments on Illinois & Mississippi waterways, U.S. Corps of Engineers. 4/ Agricultural Marketing Service, USDA. 5/ Preliminary data for 1994. P = preliminary. — = not available.

Information contact: T.Q. Hutchinson (202) 219-0353

Indicators of Farm Productivity

Table 38.—Indexes of Farm Production, Input Use & Productivity ^{1/}

	1983	1984	1985	1986	1987	1988	1989	1990	1991 ^{1/}	1992 ^{2/}
	1982=100									
Farm output	84	101	105	102	104	97	108	112	112	—
All livestock products	102	100	103	103	106	108	110	112	114	—
Meat animals	102	100	99	99	100	102	102	102	105	—
Dairy products	103	99	105	106	105	107	106	109	109	—
Poultry & eggs	100	103	108	112	122	125	130	138	144	—
All crops	71	100	106	99	101	88	105	112	109	—
Feed crops	31	108	125	119	101	63	118	113	113	—
Food grains	84	93	87	77	77	70	77	99	76	—
Oil crops	75	87	96	88	88	71	87	87	92	—
Cotton and cotton seed	68	111	113	83	127	133	103	138	140	—
Tobacco	75	89	77	58	61	89	71	83	85	—
Vegetables and melons	97	103	109	110	117	111	114	123	122	—
Fruits and nuts	100	100	99	95	109	117	111	113	105	—
Other crops	101	110	111	120	132	137	141	141	148	—
Farm input	96	98	95	92	89	87	87	89	89	—
Farm labor	95	97	89	87	84	86	82	87	88	—
Farm real estate	92	97	97	84	91	90	91	90	89	—
Durable equipment	95	91	88	80	74	70	67	65	63	—
Energy	97	100	90	84	93	93	91	90	89	—
Agricultural chemicals	93	106	101	111	100	90	93	90	94	—
Feed, seed, and livestock purchases	99	101	108	105	101	98	99	105	104	—
Other purchased inputs	107	108	99	89	92	90	96	97	100	—
Farm output per unit of input	88	103	111	111	117	112	124	127	126	—
Output per unit of labor										
Farm ^{3/}	88	104	118	117	123	114	131	129	127	—
Nonfarm ^{4/}	102	105	106	108	109	110	109	109	110	114

^{1/} New data and methods were used to calculate the 1991 indexes and to revise them back to 1948. ^{2/} Preliminary. ^{3/} Economic Research Service. ^{4/} Bureau of Labor Statistics. — = not available.

Information contact: Rachel Evans (202) 501-8382.

Food Supply & Use

Table 39.—Per Capita Consumption of Major Food Commodities^{1/}

Commodity	1985	1986	1987	1988	1989	1990	1991	1992	1993 P
	Pounds								
Red meats 2/3/4/	124.9	122.2	117.4	119.5	115.9	112.3	111.9	114.1	111.9
Beef	74.6	74.4	69.6	68.6	65.4	64.0	63.1	62.8	61.5
Veal	1.5	1.6	1.3	1.1	1.0	0.9	0.8	0.8	0.8
Lamb & mutton	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Pork	47.7	45.2	45.6	48.8	48.4	46.4	46.9	49.5	48.7
Poultry 2/3/4/	45.2	47.1	50.7	51.7	53.6	58.0	58.0	60.0	61.1
Chicken	36.1	37.0	39.1	39.3	40.5	42.2	43.9	45.9	47.1
Turkey	9.1	10.2	11.6	12.4	13.1	13.8	14.1	14.2	14.1
Fish & shellfish 3/	15.0	15.4	16.1	15.1	15.8	15.0	14.8	14.7	14.9
Eggs 4/	32.9	32.6	32.7	31.6	30.4	30.1	30.0	30.2	30.1
Dairy products									
Cheese (excluding cottage) 2/5/	22.5	23.1	24.1	23.7	23.8	24.6	25.0	26.0	26.3
American	12.2	12.1	12.4	11.5	11.0	11.1	11.1	11.3	11.4
Italian	6.5	7.0	7.6	8.1	8.5	9.0	9.4	10.0	9.8
Other cheese 6/	3.9	4.0	4.1	4.1	4.3	4.5	4.6	4.7	5.0
Cottage cheese	4.1	4.1	3.9	3.9	3.8	3.4	3.3	3.1	2.9
Beverage milks 2/	229.7	228.6	226.5	222.4	224.3	221.7	221.2	218.7	214.2
Fluid whole milk 7/	123.4	116.5	111.9	105.7	97.6	90.4	87.4	84.2	80.5
Fluid lowfat milk 8/	93.7	98.6	100.8	100.5	106.5	108.4	109.9	109.5	107.0
Fluid skim milk	12.6	13.5	14.0	16.1	20.2	22.9	23.9	25.0	26.7
Fluid cream products 9/	6.7	7.0	7.1	7.1	7.3	7.1	7.3	7.5	7.6
Yogurt (excluding frozen)	4.1	4.4	4.4	4.7	4.3	4.1	4.2	4.3	4.3
Ice cream	18.1	18.4	18.4	17.3	16.1	15.8	16.3	16.3	16.1
Ice milk	6.9	7.2	7.4	8.0	8.4	7.7	7.4	7.1	6.9
Frozen yogurt	—	—	—	—	2.0	2.8	3.5	3.1	3.5
All dairy products, milk equivalent, milkfat basis 10/	593.7	591.5	601.2	582.9	565.2	570.7	565.3	564.9	572.1
Fats & oils— Total fat content	64.3	64.4	62.9	63.0	60.4	62.2	63.8	65.6	65.0
Butter & margarine (product weight)	15.7	16.0	15.2	14.8	14.6	15.3	14.8	15.2	15.3
Shortening	22.9	22.1	21.4	21.5	21.5	22.2	22.4	22.4	22.9
Lard & edible tallow (direct use)	3.7	3.5	2.7	2.8	2.1	2.5	3.1	4.1	3.8
Salad & cooking oils	23.5	24.2	25.4	25.8	24.0	24.2	25.2	25.6	24.3
Fresh fruits 11/	111.0	117.7	120.6	121.5	123.2	117.1	113.0	122.7	124.3
Canned fruit 12/	16.0	16.5	16.6	16.3	16.6	16.5	15.4	17.8	16.1
Dried fruit	3.0	2.8	3.1	3.3	3.2	3.4	3.1	2.8	3.2
Frozen fruit	3.0	3.4	3.6	3.3	3.7	3.5	3.4	3.6	3.5
Selected fruit juices 13/	67.6	69.4	71.5	71.8	67.3	60.0	69.0	63.6	73.2
Vegetables 11/									
Fresh	102.1	100.4	107.0	110.8	114.9	112.3	109.6	114.0	113.0
Canning	95.3	95.6	95.2	91.2	98.9	107.2	109.4	107.2	107.9
Freezing	19.6	18.6	19.3	21.2	20.9	20.5	21.8	21.0	22.8
Potatoes, all 11/	122.4	126.0	126.0	122.4	127.1	127.7	130.4	132.4	135.7
Sweetpotatoes 11/	5.4	4.4	4.4	4.1	4.1	4.6	4.0	4.3	3.8
Peanuts (shelled)	6.3	6.4	6.4	6.9	7.0	6.0	6.5	6.2	6.0
Tree nuts (shelled)	2.5	2.2	2.2	2.3	2.4	2.6	2.3	2.4	2.3
Flour & cereal products 14/	156.1	162.0	170.7	175.4	175.2	183.3	185.6	187.0	189.2
Wheat flour	124.6	125.6	129.8	131.7	129.4	135.6	136.6	138.1	139.4
Rice (milled basis)	9.0	11.6	14.0	14.3	15.2	16.2	16.8	16.9	17.5
Caloric sweeteners 15/	131.5	129.7	134.5	135.5	135.9	139.6	140.6	143.8	147.1
Coffee (green bean equiv.)	10.5	10.5	10.2	9.8	10.1	10.3	10.4	10.3	10.0
Cocoa (chocolate liquor equiv.)	3.7	3.8	3.8	3.8	4.0	4.3	4.6	4.6	4.6

^{1/} In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, & ending stocks. Calendar-year data except fresh citrus fruits, peanuts, tree nuts, & rice, which are on crop-year basis. ^{2/} Totals may not add due to rounding. ^{3/} Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. ^{4/} Excludes shipments to the U.S. territories. ^{5/} Whole & part-skim milk cheese. ^{6/} Natural equivalent of cheese & cheese products. ^{7/} Includes Swiss, Brick, Munster, cream, Neufchatel, Blue, Gorgonzola, Edam, & Gouda. ^{8/} Plain & flavored. ^{9/} Plain & flavored & buttermilk. ^{10/} Heavy cream, light cream, half & half, & sour cream & dip. ^{11/} Includes condensed & evaporated milk & dry milk products. ^{12/} Excludes pineapples & berries. ^{13/} Single strength equivalent. ^{14/} Includes rye, corn, oat, & barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, & fuel. ^{15/} Dry weight equivalent. — = not available.

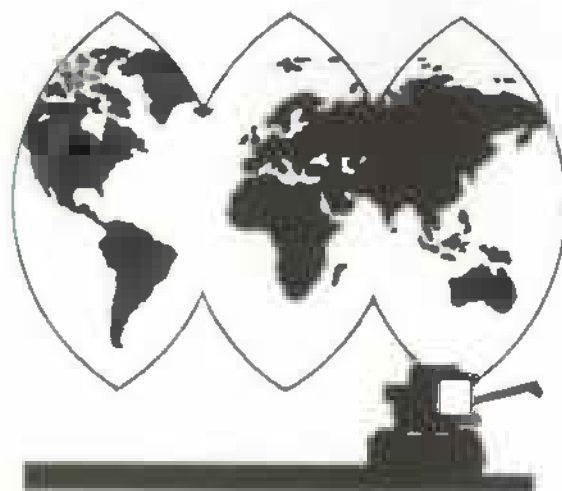
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Information contact: Judy Jones Putnam (202) 219-0862.

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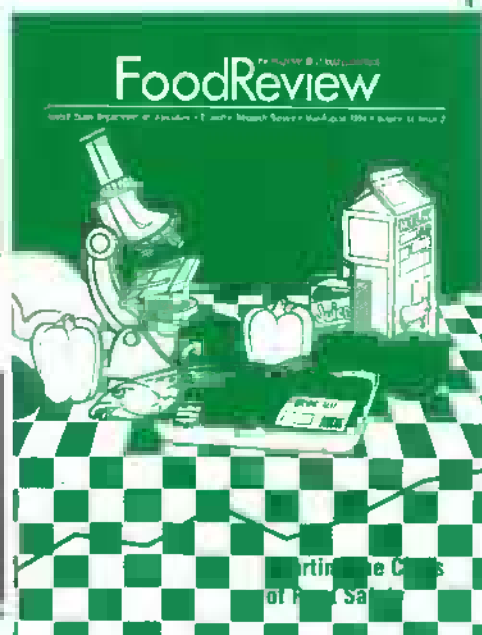
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